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AGRICULTURAL CREDIT

By **M. CRAMOIS**
Director of the French National Rural Credit Savings-Bank

Scientific discoveries, technical progress, and the intensive development of means of transport have brought about in the last fifty years, deep changes in all branches of economic activity, and these changes have not failed to react on the agricultural life of all countries.

Formerly, the farmer lived under a patriarchal economic system, in a closed economy, growing what he needed for his own consumption. Exchanges were very limited and it was reasonable to suppose that the profession of agriculture called for a very limited working capital.

This economic system was turned upside down when the urban populations began to grow steadily, requiring ever larger quantities of products which they could not obtain from their immediate neighbourhood, but had to seek from the agricultural production of distant parts, which the means of transport enabled them to reach.

Thus, generally speaking, economic conditions, accompanied by the evolution of social habits, have led farmers to give up farming by rule of thumb, following time-honoured traditions, in favour of more modern systems, securing larger crop yields by more scientific improvement of the soil and specializing their lines of production.

To do this, the farmer like the manufacturer and the trader has had to seek, for the credit he needs not only for purchasing livestock, implements, seed, and fertilizers, but also for carrying out land improvements, converting or enlarging his farm buildings, meeting ever higher operating costs, and above all the ever higher cost of labour.

Thus, in normal years, credit has become essential for the farmer, and it is even more so in a poor crops year, or when he should defer the sale of his products in years of exceptionally high yields.

Agricultural credit has, moreover, become indispensable in all those countries where the economic situation has made it necessary to regulate the market for agricultural products, and the rational distribution of credit has become an essential factor for carrying out established plans.

The special conditions under which agricultural production is carried on, do not allow the farmer to have recourse to the ordinary sources of credit.

In this field, even more perhaps than in other branches of economy, facts must be faced.

It is just these needs inherent in agricultural production, the special character of the laws regulating its economy, which explain how it is that side by side with institutions supplying credit to an interprofessional clientèle, and at a time when credit experience and technique lead to specialization to meet the needs of the several kinds of operations, credit institutes for farmers have grown up supplying all the various forms of financial assistance that they need.

In industrial economy, the factory or the undertaking are only distantly connected with their physical environment, and depend mainly, even under a régime of planned economy, on individual enterprise, but in agriculture the size, the economic structure, the technical organization and the administrative systems employed on the farm are closely associated with the whole body of the natural and social conditions of the environment.

Moreover, the intensification of production which helps to lower costs, cannot play a part in agriculture as it does in industry for in

spite of technical improvements it is impossible to exceed a certain yield per hectare.

Another essential difference between industry and agriculture is to be found in the price determining factors of the products, a matter of prime importance from the point of view of credit, and one of undoubted present interest for all economic systems.

For if there is a definite relation between costs and prices in the case of manufactured products, this rule has not the same importance in determining the prices of the products of the farm, as from one year to another yields vary in a measure that it is difficult if not impossible to foresee, and it is not easy to replace one crop by another. This means that the farmer cannot rapidly adjust or arrange for a general shift of production, retarding or accelerating it in conformity with market needs.

Moreover, the duration of the credit granted cannot be reckoned in the same way for agricultural and for commercial and industrial transactions. A loan must take into account the time required for recovering the capital employed in production. Now, in most cases, the farmer can only reconstitute his capital once a year, and cannot modify this period.

In addition to the precarious nature of crops, which may be suddenly endangered, consideration must also be given to the narrow limits of the income obtained from agriculture which induces savings to avoid agricultural investments, as profits are low and the time required long. All this shows the difficulty of procuring for the farm the capital of which it is in need on economically tolerable conditions.

Last but not least, account must be taken of the psychology of the peasant who is slow to change his methods and to give his confidence.

Indeed, it is a long time job, and one in which the usual methods of publicity and business propaganda cannot be applied, to induce farmers to have recourse to credit and to convince them of the advantages they can secure from opening a banking account and employing the modern method of payments by cheques.

Characteristics of agricultural credit.

The basic principles on which agricultural credit is founded owe their origin of course to the considerations set forth above, and the distinctive features of this form of credit make it necessary to adopt special conditions as to duration, rate of interest, guarantees required and general organization, which must be suited to the life of the farm.

Agricultural credit institutes must, therefore, have a structure which allows them to grant farmers the several forms of credit they need, and the duration of the loans must correspond to that of the operations they finance. They must provide :

— short term or seasonal credit, by making available to the farmers the circulating capital necessary for the proper operation of their farms while awaiting the sale of their crops ;

— medium term credit for the purchase of livestock and agricultural requisites, or for making land improvements of average duration, such as altering the crop systems ;

— long term credit for the purchase and equipment of small or average sized farms and for carrying out land improvements of long duration, as for instance drainage and irrigation works, the building of stables, silos, warehouses, or other farm buildings.

These three kinds of loans, – short, medium, and long term, – are provided for by French legislation on agricultural credit.

These loans, it should be pointed out from the start, are not granted only to individual borrowers but to collective agricultural groups, such as cooperative societies, which receive generous financial support from the agricultural credit banks to facilitate their establishment and assure their successful operation.

The development of co-operation in agriculture would seem indeed to be essential under modern conditions of agricultural production on which the improvement of the nutrition of the populations is strictly dependent.

Rural public bodies (departments, communes, and communal syndicates) must also be acceptable for loans from the agricultural credit banks so as to secure the capital required for

carrying-out works of rural equipment, such as electrification, drinking water supplies, or building country roads.

Both individual and collective loans must be made at as low a rate of interest as possible so as to match the rates of remuneration obtained by capital invested in agricultural economy and also so as to take into account the social purposes often pursued, as is the case for instance when the purpose of the loan is the purchase of small holdings.

The organizations making the loans must, on their side, be able to adopt credit systems suited to the very varied aspects of agricultural production.

Thus French legislation has provided for short term loans for moving the cereal crops, financing the production of wine, alcohol, wool, etc., by prolonging short term seasonal loans so as to cover a period corresponding to that of the crop.

Under agreements reached with the « Office national interprofessionnel des Céréales » the agricultural credit banks are authorized to discount bills representing loans subscribed by the cereal co-operative societies as counterpart to the wheat they hold. These bills, endorsed by the National Office of Cereals, may then be rediscounted by the Bank of France at the request of the agricultural credit banks.

Likewise, in France, in addition to the ordinary medium term loans, others are made for a period not exceeding 5 years by means of discounts giving rise to bills of mobilization for facilitating the purchase of agricultural requisites and farm equipment.

The elasticity thus secured in the conversion of the loans, so desirable in normal times, should be yet further increased under the exceptionally difficult condition that agriculture may now have to pass through.

In this connection, the economic situation of the several countries at the close of the second world war should be considered. Their agricultural economy has suffered serious losses, of exceptional importance in the countries devastated by military operations or occupied by the enemy.

The disorganization and delay in farm work had reacted seriously on the food situation, as the areas sown to cereals had been reduced by the lack of labour, traction, and fertilizers, the scarcity of fodder had reduced the number of the livestock and deteriorated its quality. The quantities of milk, meat, and farm-yard products such as eggs which were available for the population had thus been reduced to very low figures.

As soon as the hostilities came to an end it was therefore necessary to remove these difficulties by facilitating the recovery and development of agricultural production.

In the countries in which the war had been fought, the work undertaken for this purpose was conditioned by the great need of credit needed for the reconstruction of the farms that had been demolished. This was the case in France where the agricultural credit banks have played an important part in the revival of the country's agricultural potential.

As soon as her territory was liberated in October 1944, the agricultural credit banks were instructed to make loans of various kinds at varying and exceptionally favourable conditions as regards rates of interest, maturity, and guarantee, so as to facilitate the revival of work on the farms. The farmers who had suffered losses were thus able to obtain loans at an interest of 1.50 %, to be redeemed in 13 years, with the right to limit payments during the first three years to the interest rates only.

Credits enjoying such advantages were afterwards made to enable prisoners and deportees to work their farms or to settle down as farm tenants on their return from captivity.

But in spite of the efforts made by the agricultural credit banks in France and in other parts of the world, the upheavals which have affected agriculture are still reacting on the situation.

Enquiries recently made show the insufficiency of the food régime in some countries where the level of consumption has fallen to less than 80 % of the pre-war figure. In the areas of Europe that have suffered most the energizing ration is estimated at some 2,000 calories, being 30 % below the pre-war level; for continental Europe, as a whole, it is slightly more favourable, but nevertheless only amounts to 85 % of the pre-war level.

This makes it necessary to carry out the national agricultural and nutrition programs with special care. By granting the farmers the credit facilities essential for meeting their growing costs, and above all for purchasing farm requisites, it will be possible to raise the level and the quality of agricultural production and to secure the desired balance between production and demand.

To what extent and in what form can the farmers be required to supply guarantees to assure the fulfilment of the liabilities they undertake ? This enquiry is essential to secure a sound distribution of credit, to which it is most important to give the character of personal credit.

The guarantees the farmer can give are much more precarious than those afforded in the other branches of economic activity and it is essential for the loaning institutions to be well acquainted with the borrowers, to have a thorough knowledge of their personal character and professional ability, and also to ascertain the possibility for their farms to amortize the loans, so as to judge of the amount of credit that may be granted them.

The existence of the agricultural credit banks would be endangered if loans were granted without adequate guarantees and the nature of the guarantees must vary according to the nature of the credit granted. In the case of short term loans a warrant, a surety, the deposit of securities, a guarantee given on the crop yields, may be asked for as the case requires. Medium term loans are generally guaranteed by sureties, or mortgage, and a mortgage is the best guarantee that can be given for long-term loans. Unfortunately a mortgage not infrequently entails rather heavy expenses, and is not always possible when the title to the property held by the borrower is not absolutely certain. This makes it necessary for the countries to provide themselves with a land-tenure system of real stability. When the borrowers own no immovables a life insurance policy in case of death affords a guarantee for medium and long term loans.

In all cases, applications for loans must be examined with the greatest care and primary importance must be attached to the moral character and technical ability of the borrower, real sureties ranking only second in importance.

The distribution of agricultural credit, therefore, requires an intimate knowledge of the borrowers by the institutions making the loans which must know their needs and their possibilities of repayment. This means that local banks specially organized must be established.

Rural credit was organized and developed spontaneously more especially in the second half of the XIXth century under the stimulus of the work of Raiffeisen and Schulze-Delitzsch in Germany, of Kampelik in Bohemia, of Stefcik in Poland, or Cerutti, Wollemborg and Luzzatti in Italy, of Durand and later of Jules Meline and Albert Vigier in France.

In all those countries co-operative and mutual credit societies were formed by the farmers and country people. The joint liability of all the members for the repayment of the loans was given, in addition to the personal or real security given by the borrowers themselves.

Some of these associations, those of the Raiffeisen type, owned no capital but all the members were jointly liable for the loans. Working in a limited area they are often based on ethical or religious principles, they are not exclusively agricultural and they hold important deposits of rural savings.

Others of the Schulze-Delitzsch type own a capital subscribed by their members, whose liability is limited to one or more times the amount of the share of capital owned by them. They are grouped in supervising unions whose duty is to watch the work of the affiliated associations, and in Central Banks of the second or third degree which receive and administer excess deposits; they can make loans to the first degree banks.

The question has been raised whether, apart from its co-operative character, agricultural credit should be strictly professional, that is to say whether it should be granted only to farmers and for agricultural purposes only, or whether it might at the same time be extended to other forms of rural activity. In the Central

European countries the Raiffeisen banks have provided in the first place rural credits while at the same time engaging in the purchase and sale of commodities.

But experience shows that it is preferable, when possible, to set up special agricultural credit banks, and in a great number of countries, agricultural credit tends to be organized for farmers only. It is thus possible to establish closer ties between men engaged in the same profession, who have common interests, and are better known to one another and therefore able to appreciate more accurately their qualities and needs.

The organization of agricultural credit in the different countries, while offering certain features in common, presents nevertheless rather important differences. This is the case more especially for the Central Banks which are not always co-operative organizations. Some of them are private joint stock companies, or public establishments encouraged and controlled by the Government, or even State banks real and proper.

The intervention of the Government is naturally more active when the central organization is a Government agricultural bank or a section of a Government bank.

This is the case in the countries of Central and South Eastern Europe, where agrarian banks have been created with the financial assistance of the Government, which in many cases has subscribed part of the capital or has assisted by the grant of advances or subsidies.

The central bank is sometimes founded with the help of capital supplied by the Government and with shares subscribed by the regional and local co-operative associations.

Generally speaking, it may be said that there are four types of organization of agricultural credit: a highly centralized institution with direct government intervention, as in the United States and the U. S. S. R.; a mixed organization in which Government organs and co-operative institutions exist side by side (Switzerland, Central and East European countries); an independent organization mainly co-operative, without government assistance (Scandinavian countries, Netherlands East Indies); and lastly a co-operative organization in receipt of government encouragement and assistance (France, Belgium, Italy, Finland, North Africa).

In France, a Central Agricultural Credit Bank was set up by the Government in 1860, but it was unsuccessful as were other attempts of like kind due to private initiative which were started a few years later. This was because they did not understand the farmers who on their side did not know them, and also because they transacted other business as well as making agricultural loans. It was thus recognized in those years that it would be preferable to form small groups of farmers within a narrow area rather than a central organization at a distance from the farm.

The present system has as its basis co-operative credit societies, and local and regional banks, while the central bank is a government public institute, the National Bank of Agricultural Credit, on whose managing board sit members elected by the regional banks. The National Bank has a special endowment which forms its capital. It receives the excess deposits of the regional banks and government advances which are repayable.

There are 4,500 local banks and 97 regional banks whose area is roughly that of a department. These banks bring together about 630,000 members.

The loans granted up to date by the French agricultural credit institutes amount to more than 16 milliard francs on short term, 11 milliard on medium term, and over 2 milliard on long term.

Taking into account the amounts granted in favor of certain groups of farmers under the provisions of special laws (farmers who have suffered war losses and ex-prisoners and deportees, young farmers establishing themselves on a farm for the first time) the loans made by the French agricultural credit institutes now amount to over 30 milliard francs.

We have thus seen that the distribution of agricultural credit is done in the great majority of countries through the agency of a free central organization, either of the Government or mixed, but in those countries with a developed agricultural economy it may be said that the

central organization does not engage in direct business with the farmers, who apply to the co-operative and mutual banks which are managed by them.

The strict enforcement of banking technique would lead to grouping the agricultural credit institutes separately, in conformity with the nature and duration of the loans they make ; but practical considerations stand in the way of this, as the farmer prefers to apply to one single bank for the several forms of credit he needs, and his position as a whole can be better appreciated by a single bank.

There is no need then to insist on the importance of credit to the agricultural life of the several countries, and there is every reason to believe that in the next few years the *Crédit Agricole* will indeed be the bank of agriculture.

The business done by the agricultural credit banks will call for ever larger means, already supplied them in part by short and medium term loans and by the deposits made by the farmers.

It is indeed much to be desired that the farmers should acquire more and more the habit of entrusting their liquid funds in the form of deposits to these banks and that the professional agricultural groups, especially the co-operative ones, should make use of the services of these banks for all their financial transactions.

Rural savings would then be directly employed for financing agricultural production.

An adequately profitable rate of interest should be assigned to deposits, and on this point it is interesting to note the exceptional importance of the volume attained by the capital managed by French agricultural credit, thanks to sound management.

The regional agricultural credit banks collect sight deposits and endeavour to proportion their volume to that of their short term loans; the deposits which can be called in only on longer notice are used for medium term credit operations.

With a view to increasing the volume of deposits, the banks provide their depositors with cheque books and accustom them to make use of this means of payment.

More than 35 milliard francs are now deposited with the agricultural credit banks.

The farmers may also invest their liquid funds in subscribing to bonds (bons de caisse) of varying lengths of maturity, issued by the agricultural credit banks, the funds thus collected being used for loans of longer date. In France the *Caisse nationale de crédit agricole* issues bonds maturing in five years, through which it secures funds for medium-term loans, and just lately it has been authorized to issue twenty year bonds for securing the means for long term credit operations. More than 7 milliard francs have been collected through the issue of the 5 year bonds.

Agricultural credit, by thus offering financial assistance to agriculture of a kind well suited to its needs, and opportunities for investing its spare funds or savings, is called on to play an important part in sustaining the effort undertaken since hostilities came to an end.

Indeed, setting aside the exceptional food difficulties which have arisen as a result of the war, it should be remembered that even in the more favoured and more developed countries for at least one third of the population the diet consumed was insufficient, especially in mineral salts and in vitamins. It is therefore necessary to face the task of increasing the supply of food before going on to improve the nutrition standards of the countries and of under-nourished groups.

In the more developed economies the quality of the food will be improved by increasing the volume of protective foods entering into the dietary and a better distribution must be secured so as to assure vulnerable groups the special foodstuffs they need.

In the other countries, efforts must be directed towards increasing the volume of protective and of energizing foods.

This long work calls for an important increase in the volume of agricultural protection, and to carry out such a program large amounts of capital will have to be invested. The agricultural credit banks will thus have to play a decisive part in financing and re-equipping the farm and in modernizing the methods of cultivation, objectives which must

be reached to secure a satisfactory rate of production.

The action of the agricultural cooperative societies will be of prime importance in carrying out the measures contemplated, both as regards the introduction of modern technical methods and as regards the processing of the crops and the search for markets.

In this connection attention should be called to the need of international cooperation to assure a rational distribution of world production, which should always be utilized in full. The role played by the FAO in securing these ends is known. It is required by the terms of its statute to assist the governments in raising nutrition standards and the conditions of life of the populations placed under their respective jurisdictions, and to promote or recommend for this purpose any action tending to raise yields and improve marketing methods.

Thus, thanks to close connection between the credit banks and the agricultural cooperative societies, both on the national and on the international plane, it will be possible to secure progressively the re-establishment of the agricultural situation, and this will lead to the improvement of food conditions, both decisive factors in the restoration of world economy.

DAIRY FARMING CONDITIONS IN NORWAY

by Prof. **R. MORK**

of the Dairy Products Section, of the Norwegian College of Agriculture.

I.

As is generally known, the most highly developed dairy industry in the northern hemisphere is situated at latitudes from 35° to 55° North, where the climatic conditions for milk production are usually the best.

In Norway, however, milk production takes place at latitudes from 58° to about 70° North and in some parts of the country milk production is centred 600-1000 m. above sea-level.

From these facts it may be inferred that dairy farming in Norway presents rather special aspects. To some extent this is the case, but certainly not as much as might be expected.

This is chiefly due to the Gulf Stream which transports enormous quantities of warm water to the Norwegian coasts, and raises the mean temperature in summer as well as in winter. Oslo for instance, which lies at latitude 60° North has an average temperature for the year of about 5.5°C, which is 6.5° C higher than the average temperature for that latitude. On the west coast the temperature is from 11 to 13°C higher than the average temperatures for the corresponding latitudes.

As the climate generally is rather humid, especially in the western parts, with an annual rainfall between 600 and 2000 mm., the conditions for production of grass and other animal feedingstuffs are rather favourable. At the same time the climate is healthy, and in most parts there is access to good pastures. It has, therefore been possible to control successfully the different bovine diseases. Norway, for instance, is practically free from bovine tuberculosis, foot-and-mouth disease, and contagious abortion.

Technically the conditions for dairy farming may thus be considered as favourable, and

it has been possible to raise the milk quality to high standards as regards both freedom from pathogenic organisms and keeping qualities.

The main problems are, in effect, on the economic side. The chief difficulty is the rather long and hard winter which necessitates a relative extensive storage of winter-fodder, and costly barns. Another disadvantage is the rugged contour of the country which splits the productive areas into rather small farm units, where modern labour-saving machinery and working methods are difficult to use and would be relatively expensive. A third problem is the long distances and the isolated location of the farms, making transport and marketing of products costly.

These difficulties are, however, less as regards dairy farming than for most other types of farming in Norway, and from early times milk production has been the leading agricultural activity in Norway. It is of interest to note that in the period from about 1100 to 1200 A. D. Norway exported butter to southern regions, *e. g.*, to Flanders.

In 1939, the total agricultural production was estimated at about 2.5 million tons f. u. (Scandinavian feed units) of which 2.2 million tons were used as fodder.

For further understanding of the important role dairy farming plays in Norwegian agriculture it may be mentioned that about one half of the income of the Norwegian farmers is derived from milk.

Accordingly, many of the efforts made by government and farmers' organizations, in order to better the economic conditions of the farms, have been concerned with milk production and trade.

During the last 100 years the government has set up to an increasing extent agricultural schools and formed advisory bodies. In the last two decades it has — as will be mentioned further on — also assisted by giving subsidies aiming partly at rationalizing production and partly at increasing the prices of farm products. Through these measures the economic conditions of dairy farming have altered considerably and are now largely dependent on the government measures.

In spite of these measures milk production is not as rationalized as one might wish. Milk cows in 1939 amounted to 864,000 but the average production per cow was only 1,761 kg. per year, totalling 1,522 million kg. In addition there was a production of 32 million kg. of goats' milk.

This rather low production is partly due to the natural conditions. The pastures are often of a rugged, mountainous character, where only agile animals are able to exist. Partly it is due to the fact that many farmers have no or only slight possibilities of marketing their products, so that production is for domestic purposes. Moreover, in many parts of the country, farming is a subsidiary activity besides fishing and forestry, with the result that insufficient attention is given to farming. In later years, however, there has, been a tendency towards greater specialization, and this will certainly affect the rationalization of dairy farming.

An important question in later years was also the considerable difficulty in obtaining manpower for work on farms, especially herdsmen. This has been caused partly by the relatively low wages in agriculture compared with those in industries, but the increasing urbanization has also played an important rôle here, as city life, affording more free time and greater facilities for pleasure, etc. has had a special attraction for the young generation.

By far the most important rôle in the work for improving dairy conditions in Norway has been played by the cooperative movement, and in the following pages the main features of the development of the dairy producers' organizations will be given.

II.

The first cooperative cheese factory in Norway was established in 1855, and was soon followed by others. Later on, in the seventies and eighties cooperative creameries and milk plants were also set up. At the same time some private enterprises, too, were started. In 1920 there were in all, 466 cooperative plants and 86 private enterprises.

The twenties were difficult years for the Norwegian farmers as well as for those in many other countries, and many suggestions were made for improving conditions. These were all based on further development along cooperative lines, aiming at a close cooperation between the cooperative milk plants, but it was difficult to find the proper form or type of organization.

In 1930, these attempts succeeded with the adoption of a plan for the foundation of milk producers' associations comprising all producers whether they delivered their milk to cooperative or to privately owned plants. The chief rule was that all producers transferred the right to sell their milk to the associations, which numbered 8, covering the whole country, and which were called *Milk Exchanges*. The Milk Exchanges had the right to fix the prices both for sale to customers and for payment to producers. They also had the right to decide the use of the milk, whether it should be used for liquid consumption, for butter-making or for cheesemaking. As a result of this development it is now reckoned that about 98 per cent.of the milk sold from farms is handled by the producers' cooperative organizations and factories.

A very important aspect of the organization was its right to level prices *i. e.*, the prices paid to producers should be independent of the actual use of the milk they delivered, but only governed by the location of the producer in relation to the market, with a certain decrease in price for producers situated at greater distances from the market.

Through this rule, the organization got a basis for obtaining different prices for the different uses of milk thus securing increased income form certain milk sales. In earlier times with free trade in milk products, it was not possible to increase the price of one product so that it gave a higher net return than with other uses because the milk would then be increasingly used for that production until the price was forced down again to the usual level. Through price levelling the Milk Exchanges have been able to handle this problem very efficiently, and large sums of money have in this way been transferred to the farmers.

Another effect of the same rule was that the organization obtained the means to create a more efficient structure of the whole dairy industry through the fusion of existing plants into greater units. The most common method has been to incorporate older and smaller plants into newer and larger ones. Through these operations it was possible to reduce the milk plant costs, and although sometimes there would be an increase in transport costs — this has not always been the case as these costs often are more influenced by size of the load than by the distance — the result was a higher milk price for the farmers.

These centralizing tendencies have been of special importance for the city milk trade. It is an important feature of the city milk trade in Norway that it has increasingly been taken over by the farmers' cooperatives and is now almost entirely concentrated in these. In addition, in cities where formerly there was more than one milk plant, the tendency has been to fusion, so that by now most cities have only one milk plant . It may be mentioned in particular that since 1946 there is only one milk plant in Oslo and its environs with nearly half a million customers.

Through this centralizing it will be possible to rationalize the transport of milk from the producer to the city milk plants. In the larger cities it has been usual to have milk receiving stations in the production areas, where the milk is weighed, controlled, cooled and sent to the city milk centre. As this takes time, it is now planned to take more of the milk by direct milk routes from the producers to the city plants.

In the cities the usual practice has been to pasteurize the milk and sell it in the dairies by the litre. In the larger cities the practice of bottling is increasing, and in Oslo it is now compulsory.

On the whole it may be stated that experience in Norway has given strong evidence of the efficiency of cooperative organizations in the city milk trade. The usual benefits of free enterprise and competition have had a decided tendency to lag behind the benefits derived from organized trade by responsible co-

operatives. This is perhaps not surprising as the leading principle in milk trade must be safety first.

III.

As already mentioned development in the last two decades has been strongly influenced by various direct measures taken by the government in order to better economic conditions for the farmers. As a considerable part of the income of the Norwegian farmers is derived from milk, these measures have to a great extent been concerned with the milk trade and milk prices.

The first measure of this character was a Law of 1930 fixing a tax of 0.25 öre per litre of milk sold through milk plants in order to secure a means of financing plans for the better marketing of milk products. Because of the agricultural crisis, this law in subsequent years was extended to include general assistance to milk producers' associations of the above indicated milk exchange type by decreeing that if a milk exchange comprising the greater part of the milk producers in a certain district levied a tax on its members in order to obtain the means to regulate the market, (*e. g.*, through the above-mentioned price equalization) the same amount should be levied on non-members selling milk within the same district.

Another important Law of 1931 directed that margarine — the consumption of which has been very appreciable in Norway — should be mixed with a certain percentage of butter. This percentage was fixed from time to time so that all the butter which was not sold in the regular Norwegian market, was delivered to the margarine industry at officially determined prices. With this regulation the outlet for milk production was secured, and the producers could increase their production as they liked with no risk in disposal. At the same time the quality of the margarine was improved.

Between the years 1930 and 1939, the milk deliveries to the dairy industry increased from 428 million kg. to 793 million kg.

Also of great importance for the milk producers were certain government measures taken in 1934 and 1935, putting restrictions on the use of concentrates, which was relatively high, and a tax on margarine production, with the object of improving the competing power of butter as compared with margarine. Steps were also taken to sell milk and butter to people in the lower income classes at reduced prices.

Generally speaking, the structure of the dairy industry as a result of these measures through organizations and the government may be summed up thus :

First it has been possible to have as much milk as possible sold for human consumption at the given and government recognized controlled prices. Further the necessary quantities of milk have been obtained to supply the home market and to cover the eventual export of condensed milk and cheese. The remainder has been manufactured into butter, and the butter which could not be sold direct, was delivered to the margarine industry.

This structure has been maintained during and after the last world war and the whole system seems now to be very firmly established both in the minds of the milk producers and in general public opinion. During the war, milk production fell so that the milk deliveries to the factories were only ⅓ to ½ of the pre-war quantities. This was caused not so much by reduction in the number of cows, which was about 15 per cent., but mostly by a reduced fodder supply. Since the war, production has increased, but the drought in the summer of 1947 again reduced the possibilities of attaining the prewar level in the near future.

A special post-war feature is that the increased production costs, as a result of the price stabilization program followed by the government, have been covered not by higher prices but, to a great extent, by subsidies paid out through the producers' organizations.

PRESENT-DAY BREEDING PROBLEMS IN THE NETHERLANDS

by Prof. Ir. **W. DE JONG**

The most pressing problem connected with cattle-breeding in these present times of shortage, both of raw materials : fodder, and of processed products : dairy products and meat, is how to breed cattle which can yield economically. In order to solve this problem, it is necessary for those concerned with the breeding of dairy cattle (which is of paramount importance in our country) to breed animals which, under normal conditions, produce regularly and over a very long period, a considerable quantity of milk with a high butterfat percentage. The keeping of adequate records is absolutely essential to the breeding of such animals. This is effected by a general milk-recording service, which operates by simple but reliable methods. By general milk-recording, we understand the method by which *all* the cows of the owners concerned are examined every year as long as they live ; and by reliable methods we understand those according to which the milk production and butterfat content are tested at least once a month by impartial and disinterested persons.

We believe that only such a general recording is valuable from an economic point of view. A recording of only a few animals of special breeders, whose milk is examined only 6 or 7 times, may be a useful and valuable measure, when taken in order to obtain a greater or lesser number of record yields, and if carried out under the supervision of an able cattle-selector and breeder ; but in our opinion it has no value at all in the breeding of cattle meant to yield a production that is satisfactory from an economic point of view. We think that one of the most urgent problems of cattle-breeders in most countries of Europe is still to achieve a system which will ensure the application of general milk-recording not only on specified cattle farms, but also on ordinary farms. I should like to mention here, in this connection, two measures which have been applied in the Netherlands during the last few years :

a. The payment of milk according to the butterfat content.

b. A tax of 5/100 cents on every kg. of milk, in order to form a fund, out of which the greater part of the milk recording costs can be repaid to the farmers.

These two measures which were drafted before the war and applied during the occupation have led, in spite of the great difficulties both in the labour and material supplies of the companies concerned, to a considerable extension of milk-recording which is carried out in the manner of a reliable general survey. This appears from the following figures. In 1938 the total number of milk-recorded cows in the Netherlands amounted to approximately 260,000, in 1943 to 310,000 and in 1946 to more than 470,000. This means that 36.9 per cent of the total number of milk-cows is milk-recorded. In the province of Friesland, where the system has been applied by the greater part of the cattle-farmers for some decades, through the initiative of the cooperative dairy factories, the number of milk-recorded cows amounted to more than 120,000 or 54.3 per cent of the total numbers of cows.

In order to give an insight into the results which can be obtained by such a control, and by well managed cattle breeding in the interest of the economy of the cattle stock, we first give a table of the average yield of the cows entered in the "Fries Rundveestamboek „ ("Friesian Cattle Herdbook „) which deals with the province of Friesland, during the years between the two world wars.

Years	Number of cows	Kg. of milk	Percentage of butterfat
1919. . .	14,566	4,019	3.29
1920. . .	14,675	4,177	3.38
1921. . .	14,837	4,325	3.40
1922. . .	14,504	4,595	3.42
1923. . .	15,096	4,684	3.48
1924. . .	14,341	4,586	3.52
1925. . .	15,012	4,505	3.54
1926. . .	15,069	4,622	3.52
1927. . .	14,893	4,707	3.54
1928. . .	15,133	4,740	3.58
1929. . .	14,728	4,668	3.63
1930. . .	15,574	4,801	3.64
1931. . .	15,855	4,711	3.65
1932. . .	16,770	4,721	3.63
1933. . .	16,538	4,713	3.68
1934. . .	17,346	4,841	3.70
1935. . .	19,033	4,825	3.74
1936. . .	20,310	4,855	3.72
1937. . .	21,517	4,928	3.79
1938. . .	22,407	4,742	3.80
1939. . .	23,111	4,660	3.83

In this survey we see that the number of milk-recorded animals and the quantity of milk annually produced together with the butterfat percentage, increase gradually, except, as concerns the milkproduction, in the last two years when the economic conditions were less favourable. The reason for this is that the production was obtained under normal circumstances and by milking the cows twice a day. Similar results were obtained with animals in the other parts of the country which were registered in the "Nederlandse Rundvee-Stamboek" (Netherlands Cattle Herd Book Society) whose average production in 1937 amounted to 4,655 kg. of milk with a butterfat percentage of 3.57 for the Black and White Holland Breed, to 4,637 kg. of milk with a butterfat content of 3.45 per cent for the Red-and-White Breed, called the Maas-Rijn-IJssel breed, and to 4,539 kg. of milk with a butterfat content of 3.7 per cent for the Black-White Head Groningen breed. This production, too, was obtained under similar normal economic conditions.

The effect of this measure was not only restricted to the herd-book farms, as the recording measures were also applied on a great many farms which did not breed herd-book cattle. Here, too, Friesland may be taken as an example since this measure has been applied in its widest sense here for quite a long time already. Therefore we give you the figures of the average butterfat content of all the milk that was supplied to the joint Cooperative Dairy Factories in Friesland during the above mentioned period.

Period — 12th May	Percentage of butterfat
1919–1920	3.20
1920–1921	3.26
1921–1922	3.26
1922–1923	3.30
1923–1924	3.34
1924–1925	3.38
1925–1926	3.39
1926–1927	3.35
1927–1928	3.37
1928–1929	3.40
1929–1930	3.47
1930–1931	3.45
1931–1932	3.44
1932–1933	3.44
1933–1934	3.48
1934–1935	3.50
1935–1936	3.54
1936–1937	3.55
1937–1938	3.61
1938–1939	3.64
1939–1940	3.67

From this survey we see that here, too, the average fat contents, although they are somewhat lower than those from the rational herd-book farms, increase rapidly. This increase — it holds good for almost all the milk supplied by the province of Friesland — is not only of great importance on account of the rise in the production of dairy products (especially of butter), but also on account of the more economic way in which the production of the cow as well as of the factory could be obtained as a result of the higher butterfat percentage.

TRACTORS AND TILLAGE MACHINES

by **Jacques BOURDELLE**

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The problems regarding tractors and tillage machines should be studied jointly. In effect, the aspects of these problems are multiple and have a common range of influence. Their chief importance is that one of the heaviest operations on the farm - ploughing - is concerned.

On studying the link between the tractor and the machine used for tilling, solutions are evident, but it is difficult to decide upon the most suitable. It is also difficult to judge the value of the principal types of tractors, even for a region or a country where the main type and average size of farm is known.

Let it be supposed (a frequent case of primary importance) that it is a question of the mechanical equipment of the majority of small farms where farming is the least intensely productive in Europe and where animals supply practically the sole draught power.

The principle of the application or the substitution of mechanical traction in small farms (and in farming in general) should, besides facilitating the manual labour of the peasant or the farm worker, also reduce production costs.

Conditions governing increased rapidity in work.

Cheaper production implies that the same work, geometrically and qualitatively measured, will be carried out more rapidly by mechanical means ; the gain in time should enable the machinery to be redeemed more rapidly, and, on the other hand, should reserve manpower for other kinds of manual work (quality) not mechanized, and which would bring additional profits to the farm. Lastly, the execution of work within a shorter period means taking better advantage of weather conditions. Rapidity in working, therefore, is a condition to be aimed at in the mechanization of farm operations, as in other cases. In reality, it is chiefly a matter of increase in area cultivated in the same time, and this result is not, nor can be necessarily attained by an appreciable increase in the speed of the tractors compared with the speed of animal draught power.

The tilling implements utilized in countries of intensive cultivation can only decide the tillage methods sought by practical workers, particularly as regards ploughing, when the traction speeds on contact with the soil remain below certain maximum speeds. Consequently, ploughing is usually effected with the tractor in second gear, namely, with a maximum travel of 5 to 6 kilometres per hour. Some types of plough bodies tried out chiefly in the United States, would permit higher ploughing speeds, obtaining better conditions for the breaking up of the soil desired by the farmers for the subsequent optimum growth of their crops. It must be taken into account, however, that in most instances, for the moment, in intensive cultivation, the maximum accelerated speed for ploughing operations is 4 or 5 to 6 km. per hour. It may be concluded that the increased rapidity in working cannot be attained solely through the speed of the tractor. Therefore, it is the increase in the number or size of the implements drawn

by the tractor which will augment the output of the machine. This leads us to advise using, in the most cultivated regions (even for smallholdings), a tractor capable of pulling a double furrow plough.

This choice presupposes certain conditions, not all of which are purely technical.

Collective utilization of the tractor.

It is evident that the use of a tractor having sufficient power to pull a double furrow plough working the soil to a depth of 25 centimetres, implies an arable area grouping several small holdings in the countries where they are prevalent.

The financial burden entailed in the purchase of a tractor could only be borne by grouping these farmers together, and only by means of a corresponding cultivable area (for example 80 to 100 hectares with a specific crop system) could the initial debt be redeemed through the sale of the produce.

Moreover, the effective working and full benefit of the tractor will only be obtained if the members of the cooperative association consolidate their plots in such a way as to have fields in which sufficiently long furrows can be ploughed.

Such are the conditions which are not particularly technical, but which are still called 'economic', and which, in being put into effect, are chiefly psychological.

Whatever the difficulties entailed in the use of a tractor and farm equipment in common, however, smallholders now readily assert their desire for a tractor owned by a cooperative or by an association, of at least for a tractor for collective use. It may be anticipated, therefore, that this necessity will arise owing to the evident difference in the cost of a tractor, even of lower power, for use on one farm, and that of a tractor used by several farmers. These are the economic and social conditions which it would be advisable to fulfil.

From the technical aspect, for this tractor with a plough turning at least two furrows at once, conditions should show advantages in operating identical with those of weaker powered tractors which the farmer might wish to own individually.

What, in effect, are the main characteristics of the latter tractors ?

Individual tractor.

It is alleged that in this case the implement is easily attached and lifted at the end of each furrow. Therefore, it is suitable for use in the small fields characteristic of individual isolated farms, common in many European countries. The reduced power of these tractors (10 to 15 h. p. at the drawbar and 20-25 h. p. at the engine) only permits, even with these attached implements, ploughing by one plough body (only one furrow) in one-way ploughing. Consequently, the concept of this tractor corresponds to the psychological, individual, rural argument, which consists in representing the liberation of the smallholder through substituting a low power tractor (only one furrow ploughed at a time) for the "laborious and untidy upkeep" of the animal or animals employed as draught power.

With these tractors, an average double-furrow ploughing (20 cm. deep) can be effected, but by ploughing in lands, that is to say, by following a technique which is far removed from the optimum tillage conditions in intensively cultivated countries in Europe, where the density of the rural population of an old continent necessitates increased production per unit area.

Even the bed-plate of the body of a low power tractor (below 17 h. p. at the drawbar) would not support an attached device for ploughing which exceeds the previous capacity : either a single-furrow one-way ploughing or a double-furrow ploughing in lands, the depth of ploughing in soils of a specific resistance (clayey-siliceous soils) being about twenty centimetres or more for medium ploughing.

Other economic advantages.

The importance of preferably executing an effective double operation in the same time by a double-furrow ploughing, in every country or in every region topographically suited for cultivation, is due to several economic ad-

vantages : the sole fact of the rapidity in working and the limited length of time reserved for an operation, although it should be considered as the essential in favour of power agriculture and high work output, is not, however, a simple idea and the only explanation. It is more tangible to explain that the small farmer acting alone and having decided to replace his animal power by a tractor, will not find a machine with a power well under 10 h. p. at the drawbar. Comparatively, ploughing could be doubled (with a double furrow one-way plough), provided that the power of the tractor is increased by several h. p. This twofold increase in the work possible in the same time, however, allows the tractor to be used by a much larger number of small farmers (for instance, 7 or 8) : the increase in capital for power which is not doubled, is therefore, amply compensated by the number of joint purchasers and by the amortization of the machine.

Moreover, the increase in power of a machine leads to the fuller utilization of each horse-power when the tractor operates under normal conditions, namely, when it expends appreciably less power for the same actual work effected.

It has already been said that the double-furrow method was to be recommended for average one-way ploughing (between 20 and 25 centimetres deep), because it will be able to correspond exactly to a specific horse power, with which consumption is economized for every unit of power and of work executed, and lubrication and other operating expenses reduced.

The plough which will perform double-furrow one-way ploughing, will only rarely be attached to or raised from the frame of the tractor, as stated earlier on, as this arrangement would entail a much heavier frame than that justified by the power required for the work : there would be an initial expense and also a higher fuel consumption to ' pull ' the engine and the heavy frame, out of proportion with the plough employed.

To avoid having on the frame of the tractor a bed-plate adequate for a plough itself entirely overhung, the plough may be partly supported on the ground by its own wheels. The front part of the plough frame, however, rests on a semi-rigid hitch to the tractor in the vertical plane, so that the tractor also acts as a partial support for the plough. At all events, because of this double distribution of load, it is no longer necessary to have an unduly heavy foundation and weight in the tractor.

Knowing the size of the frame and the power required for one double-furrow one-way ploughing, it will be useless to have a larger and more powerful machine entailing a higher purchase price, fuel consumption and lubricant requirements. But, for the type of plough, called semi-attached to the tractor, to have all the advantages of the type of plough completely attached, it would be advisable to give the body of the plough, in the horizontal plane, an interdependent mobility with the frame of tractor when the plough is lifted, without, however, encumbering the tractor with the bulk or weight of a completely attached plough : the supporting wheels of the plough should be able to follow the sharpest turns of the tractor during lifting in order to obtain narrow headlands, and in particular, only short intervals with the engine running idle, as this entails extra expenditure. In this joint mobility of the tractor when the plough is raised (on changing furrows), the device generally consists, on the tractor drawbar, of a flexible triangulation of each lateral frame member of the plough resting on the draw-hook of the tractor. Thus, in the horizontal plane, the entire plough frame follows every movement of the tractor frame, with which it forms a practically unalterable combination.

Conclusions.

This increase in effective work, both in quantity (by double-furrow ploughing) and in quality (one-way ploughing), cannot, however, be universally obtained, even in any one country of Europe.

It will be advisable to limit the single-furrow tractor plough to the regions where, owing to the broken ground, it would be impossible to pull a semi-attached double-furrow plough for one-way ploughing ; in this case, the single

body attached plough (alternating or reversible) is recommended. This system could be applied in many regions of every European country, but should not be the main policy. Likewise, the same tractor (not having quite sufficient horse-power for the main type of ploughing advocated) could very well be used for double-furrow ploughing, 20 cm. deep, but with the furrows turned in opposite directions and not always in one direction, wherever the soil moisture necessitates this method of tillage so as to obtain furrow-drains between the ridges.

This type of tractor could also be utilized in areas better adapted to multiple furrow ploughing, the furrows being turned simultaneously in one direction. In this instance, this lower powered tractor, used for minor needs, with its attached implements, will effect the lighter operations including surface ploughing. These operations, therefore, will comprise, besides light ploughing in ridges and not level (with the plough body turning in one direction only), scarifying, dressings, harrowing, sowing. It is understood that the logical utilization of either of these types of tractors (and eventually of both for a fairly large enterprise) is for groups of small or medium sized farms where power agriculture is to be put into operation. In effect, it is a question of purchasing groups and the collective use of machinery. Otherwise the necessary funds for the economic use of tractors would be inadequate. Only large farms could raise the capital for machinery for individual use. In general, agricultural associations and more especially cooperatives or groups for collective use of machinery are essential for the mechanization of medium and small farms, very numerous in Europe.

This grouping is particularly important as the chief type of tractor suggested earlier on in this article, is for average ploughing (to a depth of 20-25 cm.), and in many farms deeper ploughing will be required, to a depth of 30, 35 and possibly 45 centimetres.

Despite the reduced areas which they will represent on each entire farm, the rapid working conditions of ploughing, the sole economic solution, will necessitate increased mechanization with increased power, a tractor of the tracklaying type being added to the others. Since capital is again tied up, possibly a large group of farms will have to replace those which had acquired smaller tractors for immediate needs.

BETTER LAND USE. AN INTERNATIONAL PROBLEM

by **Hugh CALKINS**

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In many pronouncements, essays and articles during the past few years the need of increasing food production throughout the World has been forcefully presented. The general thesis is well expressed in a paragraph of the Annual Report of the Director General of FAO summarizing one of the chief recommendations of the Preparatory Commission on World Food Proposals:

> "Extensive agricultural and industrial development, undertaken under the auspices of United Nations organizations, to raise living standards in the underdeveloped areas of the world, increase purchasing power, expand world markets, and assure high production and employment in the highly developed countries".

It is assumed that 'underdeveloped countries' are, in this context, those in which modern methods of farming, manufacturing, and distribution of goods have not been generally employed, as they have in parts of Europe and America. The conclusion, then, seems to be that the World can prosper only if the findings of science are fully and freely applied, with the help of international loans and the services of agricultural and industrial experts from appropriate countries. This idea is basically sound but its application should take into account one of the most important hazards to sustained production, namely, that fully half of the agricultural world has reached a deplorable state with respect to its natural resources. Until something is done about soil erosion, deforestation, and their attendant evils — including floods and depletion of water supplies — the application of 'modern methods' will accomplish little in the direction of increased food production. Some of the 'underdeveloped' countries are actually over-developed in the sense of over-exploitation of the soil by their teeming populations.

It is not unusual for students of world economy to assume that the food-supply problem can be solved by, first, making a survey of world food production, distribution and consumption, and second, setting in motion those measures which will increase production through the application of agronomic science and improved means of food distribution to hungry people. Granting that is an over simplification of the proposals that have generally been put forth, the fact remains that too little attention has been given to the need of a far-reaching program to prevent the further destruction of the World's natural resources as well as to repair, within reasonable limits of human efforts, the damage that has been done.

It is true that the world, which now produces too little food to feed its population at a decent standard, could momentarily improve the situation by the use of better seed, more fertilizers, and more farm machinery. These improvements, however, would not be lastingly effective unless they formed integral parts of a frontal attack on the besetting problems, of which soil erosion and its impact on human welfare is perhaps the most fundamental. No one will quarrel with the intelligent use of fertilizers and better seed, by people who can afford to buy them, nor on the introduction of mechanized farming, provided the farmers who propose to use machinery on erodible

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soils are well schooled in how to use it for the good of the land. Indiscriminate use of machinery based merely on the fact that it is a cheap method of putting large areas into cultivation may do actual harm, as witness the creation of 'dust bowls' by mechanized grain-farming after World War I. Far better to study and adopt those practices which will safeguard the land than to have to repair damage that might have been avoided. Fortunately, there is a new crop of engineers who know how to use machinery to check and prevent erosion, instead of causing it.

In the Old World, the pressure of population on land has led, over the centuries, to its destruction by people who did not know what harm they were doing. In the New World, and in parts of Africa and the Far East colonized by Europeans, land has been too often exploited to make money, without much regard to the future. Even agricultural science is sometimes employed as a means of bringing about the kind of increased production that ultimately exhausts the soil. For example the one-crop farmers by taking partial advantage of science, managed to produce, year after year, more and better cotton and wheat until erosion on sloping lands and wind-swept plains reversed the trend.

The question may well be asked: of what importance to Europe is all this discussion? The answer is first that all the Mediterranean countries, together with others in a similar climatic zone, have been seriously damaged by erosion, floods, and diminution of sustained water supply, and second, that Central and North-eastern Europe are affected to lesser but important degrees. Even where there are no spectacular examples of soil-wastage, it often happens that through the almost invisible but insidious process of sheet erosion top soil is being carried off little by little from sloping land during each heavy rain. It is probably true only in Northwestern Europe, where the climate and a strong tendency toward a livestock economy are favorable factors, that the erosion-conscious person can breathe easily.

One of the chief causes of erosion, and one of the most troublesome, is overgrazing by sheep, goats, cattle and every other four-legged vegetarian that roams the open spaces. It is true, of course, that more valuable lands are destroyed by unsuitable methods of cultivation, but overgrazing not only affects a vastly greater area but also has frequently more damaging results in inhibiting reforestation, accelerating run-off from watershed lands and clogging river channels and reservoirs with silt. From personal experience, I can assure the reader that he would see abundant evidence of grazing damage in an airplane flight from Rome to Yugoslavia and Greece, or to Sicily, Tunisia, Algiers, and Morocco. There is plenty of written testimony, too, that similar damage is widespread throughout the Middle East, South and East Africa, India, China and the Western United States, not to mention many parts of Mexico and South America. Australia and New Zealand are by no means free of overgrazing and its harmful effects. This factor is important in parts of Europe where livestock range at large, in the hills and mountains, rather than being restricted to improved pastures.

Erosion on farm lands can usually be at least partly corrected, if it has not gone too far, by the adoption of contour cultivation, terracing, strip-cropping and other methods that produce better crops quickly and appeal to the farmer's common sense. Overgrazing, on the other hand, can only be corrected by reductions in the number of livestock and fairly revolutionary changes in management, so that the owner of the animals, even if he stands to profit in the long run, is apt to feel that he is being unjustly dealt with and faces economic ruin. According to a reasonably authentic account, a small area at the head of a watershed in Greece, virtually cut to pieces by deep gullies, reached its present sad state because its inhabitants, finding their farm lands literally going down hill, increased their goat herds in the hope of offsetting their losses in farm income and continuing to live, however precariously. To protect the valuable

lands and irrigation works in the valley below, this area at the head should be closed to all forms of use. But where will the goat-owners and their families go, and how will they continue to exist?

Questions like this point strongly to the necessity of integral planning of land and water use — farming, grazing, forestry, and irrigation — and of devising schemes that will take fully into account the human and economic aspects of the many problems encountered. Relatively little progress, especially in the crowded agricultural regions, can be expected unless reductions in the intensity of land-use or over-use, can be accompanied by such measures as resettlement, alternative employment off the farm or grazing range, and irrigation, with a view to ultimately raising the level of living and making it possible for farmers to adopt practices calculated to halt destruction and repair damage. Education, widely and intelligently applied, is an essential part of the whole scheme, but it must be accompanied by economic measures to improve the status of the individual and his community, and by public works to improve the natural recources.

FAO has been making progress in appraising the food supplies of the World, in preparing for a World Census of agriculture, in economic surveys, forest inventories, a survey of range and pasture lands, a study of soil-classification systems and a publication on erosion the world over. Commendable as these efforts are, there remains the need of more specific determination of what is happening to the land and water resources and what must be done if civilization is to wage a successful battle against the forces of soil erosion, floods, and forest depletion. One well-trained and practical scientist has proposed, as a first step, that FAO sponsor worldwide adoption of a classification scheme which would deal not only with the physical and chemical properties of soils, but would also take into account water relationships, slope, erosion and other factors which, considered in relation to climate, would determine present and potential productivity in terms of crops, grass, and trees, and indicate the measures which must be undertaken to correct erosion, prevent floods, and provide for irrigation or drainage.

Whether or not this proposal, all too briefly and inadequately expressed, is sound in every respect, may be debatable, but the fact remains that one of the essentials in an international campaign to bring about long-term sustained food production and to raise nutritional standards is an inventory, country by country, that will catalogue the condition of land and water resources, the physical and economic measures required to improve them, and their production potentialities.

It is not necessary, however, to await the completion of such an inventory before starting other lines of international effort, including the exchange of technicians, the planning of conservation and land-use programs for particular areas or watersheds and the advocacy of international loans enabling the plans to be translated into action. Plans, technical assistance, finance, and governmental action, necessary as they are, are not enough. Unless the people who use the land are convinced that the programs are sound and are given a chance to contribute cooperatively and strongly to the planning and execution of the work, success cannot be expected.

In much of Europe, substantial increase in food production and strong support to the national economy can be accomplished by schemes providing for irrigation, drainage, flood control, and hydroelectric development. Almost without exception, however, these schemes will be successful only if soil erosion control, coupled with rational use of farm, grazing, and forest lands, is first undertaken. Translating this thought into action, plans could be formulated for small watersheds, which would serve as training and proving grounds for larger ones, provided always that financial arrangements and agreement on land-use changes could be assured in advance. Some of the larger projects, on rivers crossing international boundaries, would require international collaboration. FAO might well supply leadership in bringing national technicians together on a logical approach to watershed planning and in furnishing, to the extent of its financial ability, specialists required by the

several countries to supplement their own professional talent.

The Final Act of the United Nations Conference on Food and Agriculture at Hot Springs in 1943 contains the statement that "Soil erosion has in the past destroyed or severely limited the utility of vast areas of land and will, in the future, unless checked, constitute the greatest physical danger to the world's food production." The conference goes on to recommend that each nation survey soil erosion and water wastage and states that "the conserving of land and water resources should be regarded as an obligation of governments as well as individuals." The implication that international action by United Nations organizations is required in helping the various governments to initiate programs is clear. The fact that the World is confronted with a long and painstaking task is no argument against an early start of the battle.

ITEMS OF INFORMATION

NUTRITION

Bread Supply of Hungary in 1947-48

In spite of the promising crop in the spring, the bread supply of Hungary in the economic year 1947-48 became worse than it was in the year before. It is known that during the months before the 1947 harvest, the solution of the bread provision for the rationed population of 4.4 million people was a very difficult problem. Against the last year's bread-grain crop of 15.5 million quintals (wheat and rye together) there will be not more than 14.5 million quintals this year.

The ration requirements of the rural population amount to about 10 million quintals, and the needs of the rationed population, if considering the diminution of the per capita rations which already has taken place and other regulations for economy, amount to 4,200,000 quintals. The seed requirements of about 3.5 million should still be added, and thus the total requirement amounts to about 18 million quintals.

If considering only the local requirement of Hungary, a shortage of about 3.2 – 3.5 million quintals must be covered. Measures for solving this problem will be decided in the near future.

According to preliminary estimates about one quarter of the breadgrain requirements of the country may be replaced by barley, maize and other secondary kinds of cereals. This substitution is, however, not possible with the rural population, therefore it is in the feeding of the town population that a most severe economy must be carried out.

2,700 calories a day in Great Britain

From 'The Economist' (November 1, 1947). The new weekly bacon ration of one ounce is a direct result of the failure in the Danish food negotiations; so is the reduction from 3 to 2 ounces in the butter ration that will come into force in November. The maintenance of the meat ration at a shilling's worth a week, and the reduction of sugar to 8 ounces a week, are the two items on which a few dollars may be saved. The Ministry of Food's reported decision to ration potatoes is justified. Administratively it will be difficult to work satisfactorily, but the poor potato harvest (estimated this year at 8.1 million tons, compared with 10.2 million tons in 1946), coupled with a possible tightening up of the bread ration, unless adequate supplies of Australian wheat are made available, has made it imperative to husband supplies against next spring and early summer.

The reduction in the calorie value of the diet from 2,870 to just below 2,700 amounts to a 6 per cent drop in consumption - or 10 per cent lower than it was before the war.

The high calorific value of the national diet has been achieved by increased quantities of bread, fish and potatoes, which make the British diet monotonous and unpalatable. Under the new cuts, the actual amount of food consumed is more likely to be four-fifths of the 1938 level.

Food subsidies cannot, it appears, be taken off. Nor, on the other hand, can the Government afford to increase their total amount.

Fats and proteins and consumption expressed in calories in Germany

In the first work published under the title "Die deutsche Wirtschaft zwei Jahre nach dem Zussamenbruch" (Germany economy two years after the débâcle), the German Economics Institute in Berlin, Dahlem, treat in detail on the problem of German nutrition. The figures given permit not only comparing the calorie consumption in each zone, but also estimating the physiological composition of the food in the different occupation zones.

The following data are furnished on consumption expressed in calories, proteins and fat per capita and per day in Germany, in comparison with the minimum quantities established by the former League of Nations :

	Calories	Protein			Fat	Protein	
		Total in gm.	Animal in gm.	Vegetable in gm.	in gm.	Animal	Vegetable
						in % of total protein intake	
Rations established by the League of Nations :							
Maintenance ration.	2 400	65.0	32.5	32.5	55.0	50	50
For average work	3 000						
Germany :							
Average consumption 1936	3 113	84.7	39.5	45.2	119.9	47	53
Normal consumer 1941 . .	2 400	64.0	28.2	35.8	45.9	44	56
Normal consumer 1942 . .	2 035	52.9	20.1	32.8	41.3	38	62
Normal consumer 1943 . .	2 181	56.4	18.6	37.8	42.4	23	67
Normal consumer 1944 . .	2 169	52.1	16.7	35.4	42.2	32	68
Normal consumer:							
Spring 1945 . .	2 010	48.8	16.1	32.7	38.6	33	67
Spring 1946 : .	1 451	43.7	9.6	34.1	13.5	21	79

(1) Calculated according to the supplementary calories indicated by the League of Nations for the different types of work.

If, on the other land, consumption expressed in calories in the different regions is examined, it will be seen that Berlin receives the highest number of calories, In the Soviet Zone, where the rations are not issued regularly, Leipzig and Dresden obtain the most abundant rations, followed by the fairly large urban centres while the calorie number is lowest in the rest of the zone. Rations are higher in the American and British Zones than in the Russian Zone, and calories are lowest in the French Zone.

Noting by regions the intake expressed in calories, proteins and fat per capita and per day, the following table is obtained per normal consumer according to conditions at the end of 1946 :

	Calories	Protein			Fat	Protein	
		Total in gm.	Animal in gm.	Vegetable in gm.	in gm.	Animal	Vegetable
						in % of total protein intake	
Berlin	1 572	40.2	5.7	34.5	11.3	14.2	85.8
Soviet Zone :							
Leipzig and Dresden	1 471	34.7	4.4	30.3	10.5	12.7	87.3
fairly large urban centres .	1 430	33.3	3.8	29.5	10.3	11.4	88.6
remainder of the zone	1 241	28.5	3.4	25.1	9.8	11.9	88.1
Average	1 282	29.5	3.5	26.0	9.9	11.9	88.4
British Zone . . .	1 542	52.8	11.0	41.8	13.4	20.8	79.2
American Zone. .	1 564	52.1	16.8	35.3	18.0	32.2	67.8
French Zone . . .	1 209	30.7	5.0	25.7	13.6	16.3	83.7
General average .	1 451	43.7	9.6	34.1	13.5	20.6	79.4

* * *

M. Tanguy-Prigent, the French Minister of Agriculture, declared at a Press Conference at the beginning of October that until the next harvest, France needs 21 million quintals of grain in addition to her own harvest (22 million quintals) to satisfy her demands. For 5 million quintals are lacking from French North Africa. In the second half of 1947, 9,200,500 quintals would be received from abroad, of which 6 million would come from the United States.

* * *

Mr. Strachey, the British Minister of Food, recently inspected in Liverpool, the first consignment of Russian canned fish to arrive in Britain. 59,000 cases of salmon and 25,000 cases of crab have arrived. Britain had sent to Russia the tin required for the packing.

AGRICULTURE

Plans for the development of agriculture in the Netherlands

Communication by Netherlands National F. A. O. Committee.

In the Explanatory Memorandum on Chapter XI of the State Budget for 1948, the Minister of Agriculture, Fisheries and Food expounds that the aims in Netherlands agriculture are directed towards raising yields and lowering the costs of production.

The task, however, is a heavy one, because the area suitable for cultivation, and not yet in use, is very small. So the cultivated area can only be

extended to a very small extent and a raise in production can only be attained by bestowing more care on the soil and the crops and by raising crops giving a higher yield per acre.

This, however, requires more labour, so that a profitable increase in production can only be realized by more extensive mechanization and rationalization. Agricultural wages show proportionately a higher rise than those in other industries and there is a considerable shortage of labour in agriculture. This accentuates the necessity of mechanization.

In addition to this, re-allotment and soil improvement are essential to the purpose, and special measures are being planned to prevent further splitting up of holdings.

At the same time, the well-known means of research, advisory services and education retain their value for improving agricultural production.

On behalf of arable farming an institute will be established to study working methods and mechanization. A similar institute for horticulture has already been in operation for some years.

The number of experiment farms has been increased, because some of these farms will be required to study the financial returns of farming.

Research on storage methods for seed and ware potatoes and improved packing methods for vegetables, fruit and cut flowers have been initiated.

Another aim is to co-operate with trade and industry in the establishment of associations for the study of common problems for potatoes and grains. This has already been done for other products, pulses, barley and flax.

A start has been made with the foundation of an institute for dairy research.

In livestock breeding special attention will be paid to butterfat recording (with a view to improving livestock), artificial insemination and livestock feeding.

The State Veterinary Research Institute will be enlarged to deal with the application of the new vaccine for foot and mouth disease.

The establishment of Provincial Animal Health Organizations will make it possible to control contagious diseases more efficiently.

Specialists have been attached to the Advisory Service for mechanization, grass and fodder production, soil research, plant diseases and industrial economy.

In the course of 1947 a new secondary agricultural school and a dairy school will be founded, both in the south of the country, later on, a secondary horticultural school will be founded. The number of agricultural winter schools and primary agricultural schools will have to be increased, owing to the large number of new pupils.

Several measures have been taken to prevent well founded complaints about the spreading of plant parasites and diseases into other countries.

Improvements in research and advisory service for fisheries demand full attention in view of the importance of fish in the present day diet.

Re-allotment and mechanization require investments, not only from industry itself, but also from the Government. This fact, together with the shortage of labour, the scarcity of materials and of foreign currency, makes it desirable to have a scheme for the putting into effect of re-allotment and mechanization. Such a scheme, covering six years, will be put before the Houses in due time. Good progress has been made in agricultural rehabilitation work, which makes it possible to lower the expenditure for this purpose, compared with the year before.

Manpower shortage will remain unchanged, so the Harvest Labour Supply Office will have to continue its work, namely, directing non-agricultural workers to agriculture during the peak periods.

The crop situation in the Netherlands on September 15, 1947

Communication by the Netherlands FAO National Committee.

The weather in August and the first half of September was again hot and dry. Some rain has fallen, mainly in the north, where it amounted to 80 per cent. of normal.

Going southward the rainfall percentage decreased to 10 per cent. of normal.

The monthly review gives the following information on the state of the crops.

Grains.

The weather was favourable for the harvest, but the yields are low.

Potatoes.

The estimates for the potato crop were high a month ago but the drought still continues and the yields of seed potatoes and ware potatoes are somewhat disappointing.

Beets.

The leaves of the sugarbeets withered for the second time in some places and the beets are small.

In the north the condition of this crop is not particularly good, and in the south it is somewhat poor. For fodder beets the outlook is similar and, in general, even worse.

Fallow crops.

Swedes, sainfoin, clover and other fallow crops show only a more or less normal development if sown before the rains in the beginning of August. The green fodder situation for the coming winter is very serious.

Pasture.

Grasslands have greatly suffered from the heat. It is necessary nearly everywhere to give the cattle feeding stuffs originally intended for the winter. No second cut of hay could be harvested.

The condition of the principal vegetables and fruits is given as follows :

Cabbage rather good ; in some districts, however, not so good or rather poor.

Onions good in most districts.

Rutabaga on the whole rather bad.

Witloof chicory, leeks and scorzonera are generally in good or fairly good condition.

The apple and pear crop is very satisfactory.

O On Monday, September 22, the Minister of Agriculture, Fisheries and Food gave a broadcast on the world food situation and its consequences for the Netherlands.

He pointed out that there are still many parts of the world, where agricultural production has not yet reached pre-war levels. So, there is a great shortage of grains and other foods. This shortage has been discussed at length at the Special Cereals Conference in Paris and the FAO Conference in Geneva and it is quite clear that the exporting countries cannot meet fully the demands of the countries deficient in these products. This makes the prospects for imports into the Netherlands unfavourable. On the other hand, Holland is a very densely populated country and will never be capable of producing enough grain and fats from its own soil for its population, notwithstanding the high level of its agricultural production.

O This year the weather conditions have been very unfavourable and the harvest is very much below those of normal years. The loss on home grain production is estimated at 350,000 tons or 25 per cent. of last year's crop.

The loss for bread grains is 200,000 tons. To maintain the bread ration an extra 200,000 tons of bread grains will have to be imported, making a total of 1 million tons up till the end of August 1948. However, the I. E. F. C. could not grant an allocation large enough to meet Netherlands requirements.

O The drought has caused a considerable reduction in the growth of grass and the crop of hay, straw and fodder is only 50 per cent. to 60 per cent. of the production in normal years. This has lowered the milk production and the loss for the production year 1947/48 is estimated at 200,000 tons of milk. Consequently, the Netherlands Government has been compelled to reduce the rations. From 28 th September onwards, the bread ration is reduced by 200 grams a week for all persons over 5 years, bringing it down to 2000 grams a week for persons of 21 years and older, 2800 for persons of 5 to 20 years and 2400 for 4 to 5 years old.

Cuts in milk rations will be as follows :

	old ration	new ration	
0 – 4 years	12 litres	10 litres	in 2 weeks.
5 – 14 »	7 »	6.5 »	
15 – 20 »	7 »	6 »	
21 and older	4 »	3,3/4 »	

Large numbers of livestock are being slaughtered, so, temporarily, an extra ration of meat will be given.

To save the animal protein supply the cheese ration will be halved for some time. Exports of dairy products will have to be reduced in spite of the urgent need for foreign exchange.

News from Czechoslovakia

In his speech in the National Constituent Assembly on Sept. 11th, 1947 Mr. Julius Duris, the Minister of Agriculture, gave detailed figures of the losses caused by this year's droughts to Czechoslovak agriculture, and of the measures taken to overcome the resulting difficulties. Below is a résumé of the facts he gave.

This year's total grain yield being officially estimated at 3,033,000 metric tons, the loss in cereals, in comparison with last year's crop, amounts to some 1,000,000 tons ; in money, this difference means a loss of 3,000,000,000 Czechoslovak crowns (60 million U.S. dollars). The total losses in crop and livestock production in consequence of the continuing droughts amount, however, to 15 milliard Czechoslovak crowns (300 million U. S. dollars), which include 4 milliard Czecho-Slovak crowns (80 million U.S. dollars) as a loss of farmers' income. If the National Income is estimated at about 200 milliard Czechoslovak crowns (4,000,000,000 U. S. dollars), of which some 60 milliard crowns (1,200,000,000 U.S. dollars) represent the income from agricultural production, these losses mean a heavy blow for both the national and the farmers' economy.

In trying to solve the problem of compensating the farmers for the losses, the first necessity is to safeguard for farmers by means of special bonuses the income for the lower quantities of produce which they will be able to deliver. At the same time it is known that many farmers in consequence of the poor yields will be unable to sell their farm products, and the extra bonuses will not compensate the farmers fully for the lower harvest.

In addition to the extra bonuses that will be paid to farmers for their products the Government plans to help the farmers by lowering the prices of imported feedingstuffs.

The Government plans to reduce the taxes paid by the farmers.

Mr. Václav Majer, Minister of Food, informed the Supply Committee of the National Constituent Assembly on 30 October, that the food situation "remained serious but not critical". It had been necessary to introduce certain cuts in the bread and flour rations which, however, were final, the ration being considered the minimum one by the Government. To ensure fair distribution of potatoes it had been found necessary to re-introduce their rationing and to initiate negotiations for their import. The Government had decided to reduce the alcoholic content of beer to 5 % and to adjust its consumer prices accordingly.

Of this year's sugar output, estimated at 400,000 tons, some 70,000 tons would have to be exported in exchange for fats and the monthly sugar ration therefore had to be cut by 300 gm. per head. In view of the restricted milk supplies, butter would be made available only to consumers under twenty years of age. Additional meat rations would most probably be cancelled in May and July 1948. Ration cards would again be issued monthly, and no permits for the export of rationed food would be granted. Foreigners would receive the same rations as all other consumers. Strict controls in production and distribution would be introduced and those violating the law would be punished mercilessly.

The cereals deficit, estimated at 450,000 metric tons, will be partly covered by 200,000 tons promised from the U. S. S. R. The remainder will, perhaps, have to be made up through further savings made on the distribution of available supplies unless other cereals imports are arranged.

A special Commission of Parliament has been established to see to the completion of harvesting and seeding. Bohemia and Moravia have been divided into 12 areas in order that this work may be more effectively organized under inspectors with considerable authority. On October 30 at a Cabinet Meeting, 8 Ministers, of Food, Agriculture, the Interior, Foreign Trade, Health, Transport, Internal Trade and Information formed a commission to "secure coordination and speedy implementation of all measures pertaining to agricultural production, imports and exports, transport and distribution of food, in prosecution of blackmarketeers and the full cooperation of National Committees in coping with these problems". The Cabinet decided to create special food and supply commissions in every local district and a provincial national committee in order to secure the fulfilment of the food plan.

The farmers are required to have their grain ground in one mill only and have to pay by giving up 10 % of the grain ground. Home grinders for preparing feed for livestock must be sealed.

The autumn plantings were damaged by continued droughts and low night temperatures. The procurement of 40,000 tons of seed for planting 200,000 ha. next spring will be a serious problem. It appears that barley for seed will have to be taken from feeding and malting supplies. The 1948 crop will probably be reduced because spring seedings do not yield as much as those made in the fall.

By the middle of October 1947, 95 % of the late potatoes in the Czech lands had been harvested as compared with 88 % by October 20, 1946. Newspapers are urging farmers to deliver every potato that can be spared. It is emphasized repeatedly that supplying food for people is more important than supplying distilleries or feeding livestock and that 150,000 tons are needed. The potato crop is estimated this year at 3,059,000 tons which is 69 % of last year's harvest.

The sugar beet harvest for the Czech lands is estimated at 2.5 million tons, *i.e.*, one million less than last year, while in Slovakia, with the increased area sown the crop will be about the same as last year, *i.e.*, about 300,000 tons.

The delivery of fodder grains by farmers – with the exception of barley – is not satisfactory; up to October 15, in Bohemia and Moravia, only 1,100 waggon-loads of oats were delivered, *i.e.*, two-thirds of the quantity delivered last year. Deliveries of hay and straw proceed slowly and hardly cover the most urgent needs. Barley is the only grain which is not disappointing this year. Although this year's harvest in barley was not higher than last year's, 5,300 waggon-loads were delivered in the Czech lands up to October 15, which is 106 % of the whole year's contingent. These deliveries were apparently caused by the extraordinary bonuses paid with the purchase price.

The state of cattle in the Czech lands was estimated at 2,795,000 head which involves a drop of 5.7 % since last year; pigs were estimated at 2,076,000 head. Further declines in both figures are expected.

News from Switzerland

Communication by Swiss National FAO Committee.

O Like other countries of the European Continent, Switzerland is suffering from exceptionally dry weather. According to official estimates the hay crop was 20 per cent. below normal. In some districts of the country the drought has caused very heavy damage, resulting in a very serious shortage of forage supplies. This autumn and winter, many thousands of cattle over and above the customary number will have to be slaughtered. The effect of the drought on livestock production will be felt throughout 1948, and, to some extent, even in 1949. The fol-

lowing measures have been taken with a view to assisting the farmers hit by the drought : Importation of large quantities of hay which will be sold at a low price in the stricken areas ; distribution of concentrates, financial assistance to the peasants, particularly in order to compensate, in the spring, for the livestock slaughtered and crops lost. Losses due to the drought in Switzerland are calculated at several hundred million francs.

O The considerable increase in the supply of slaughter animals due to the drought made it possible and even necessary to abolish meat rationing in Switzerland. It was essential for this restriction to be lifted in order to allow private and collective establishments to utilize or to can as much meat as possible. The formation of reserve stocks should be particularly encouraged as next year's supplies will be short. Though meat rationing is abolished, the difficulties of food provisioning should not be forgotten.

O When FAO held its conference in Geneva, Switzerland had already taken steps in regard to the program for field crops in 1947-48. In view of the continual shortage on the world market, the Federal Government desires to reserve for cereals, potatoes, sugarbeets, other field crops and vegetables, an area equivalent to that cultivated the last few years, namely an area appreciably larger than the pre-war limit. At present, the persistent drought is delaying sowing to such an extent that probably it will not be possible to sow a fairly large area until next spring. It may be reckoned, however, that there will be no reduction in the total area sown to corn. This indicates that Switzerland is taking into account the recommendations formulated by FAO in Geneva. As field crops have given poor yields for three consecutive years it is hoped that a normal harvest will be obtained next year.

News from Austria

O Owing to the partial failure of indigenous supplies the level of ration distribution in certain Austrian Provinces has fallen at times to about 1,450 calories daily for the normal consumer and other categories have been given proportionately less than full entitlement.

O The Allied Council (composed of the Four Occupation Powers) has called for a full enquiry into the winter fodder situation. It is anticipated that considerable slaughter of beasts will be necessary if the winter is to be passed without serious deterioration of all livestock. Milk yields have been falling steadily and it is very unlikely that any distribution of fresh milk will be maintained in Vienna beyond about mid October.

O A consignment of 23 pedigree large white in-pig gilts and 2 boars arrived by air transport from the United Kingdom in good condition.

This is the first batch of livestock to arrive purchased under the recent British Lgs. 10 million fund. The quality of the consignment was considered excellent.

O Lifting of main crop potatoes is proceeding satisfactorily and yields are expected to be good despite statements to the contrary by the Ministry of Agriculture.

O The weather has continued to be very dry and in certain districts cattle have been brought down from Alpine pasture some weeks earlier than usual. The effect of this will be likely to further reduce winter milk yields as inroads are thus already being made into forage stored for winter feeding.

O A series of a new type of manufactured Steyr-tractor was started in Austria a short time ago. The first tractors will be delivered in the course of October. At the beginning of 1948, production will amount to 300 tractors per month, and this quantity will be increased to 500 per month in the course of 1948. The price of the ordinary tyre tractor, is 28,000 shillings.

Crop forecasts in Portugal

Provisional data from the National Statistics Institute, Lisbon - (10-11-1947).

Potatoes on irrigated land. — It is estimated that the crop will attain approximately 6 million quintals which, compared with 1946, represents an increase of 10 per cent. and, compared with the last five years, over 14 per cent.

Maize on irrigated land. — Yields are expected to amount to 3,600,000 hectolitres. This figure is 2 per cent. below the preceding crop, but is slightly above (+ 3 per cent.) the average for the past ten years ; the crop, therefore, may be considered as satisfactory.

Beans on irrigated land. — The yield of this pulse is estimated at 421,000 hectolitres, and represents a 15 per cent. increase on last year's crop, and 30 per cent. on the last ten year average.

Rice. — It is expected that yields will attain 810,000 quintals. Production would thus exceed that of last year by 30 per cent. and would be 12 per cent. higher than the 1937-1946 average. The crop would be the best obtained since 1941 and one of the best recorded.

Wine. — Production is expected to amount to 8,400,000 hectolitres this year. Compared with last year this means an increase of 26 per cent., but is a bare 90 per cent. of the average for the last ten years.

Agricultural improvements. — Included in the agricultural improvements provided for by Law 2.017 and Decrees 35.993 and 35.994, and covered by a special fund of 200,000 contos administered by the Junta for home settlement, are :

The impounding, pumping and distribution of water for irrigation ; the extension or adjustement of the present irrigation system ; the adjustment and conversion of ground into irrigated land ; the drainage, reclamation of land and soil improvement, the construction and improvement of farm buildings and working premises attached to the farm ; the establishment of nurseries and the planting of trees and shrubs of known economic social importance ; construction of depots, cellars or other premises which can be utilized by labour associations and cooperatives, and lastly, the purchase of machinery and farm equipment.

Sugar prospects

O Owing to the prevailing drought in the spring and summer of 1947, the prospects of the 1947-48 sugar season in Belgium are not very satisfactory. The average sucrose value is about 15°2 compared with 16°3for the previous season. The weight of the roots which averaged 670 grams last year, is under 500 gm. Experienced observers anticipate that production will amount to about 150,000 tons white sugar. The Food Minister is retaining control of the sugar quotas for industrial utilizers, and also of direct consumption. Foreign raw sugar will be imported to cover the shortage. The price and distribution program of the Government is reckoned for a stock of 230,000 tons white sugar.

O In the bi-zone Germany 148,000 hectares of sugar beet have been cultivated, compared with 133,500 hectares last year. Owing to the drought it is estimated that the beet-crop in the Rhineland will yield only 350,000 tons of white sugar, compared with 730,000 tons last year, although the cultivated area was extended from 36,000 to 38,000 hectares.

O The Soviet News Agency ' Tass ' reports that the collective farms had an average yield of from 12 to 14 tons of sugar-beet crop per acre almost everywhere in the Soviet Union and a still higher one in the Ukraine and in the Kursk and Voronezh regions where it reached 20-28 tons per acre. The total harvest in the Ukraine is three and a half times as big as in 1946. The sugar refineries are working at full capacity.

O In Greece the production of currants in 1947 is estimated at 85,000 metric tons, dried weight, and of sultana-raisins at 25,210 metric tons, as compared with respectively 56,500 and 18,000 tons in 1946. The condition of currant and raisin vineyards in Greece continues to improve with better cultivation and more adequate use of pesticides.

World sugar crop estimates

The first of the season's estimates of the world sugar crop published by Messrs. C. Czarnikow, Ltd., shows that the grand total of beet and cane sugar is 1,100,000 tons larger than in the 1946-47 season. The European crop consists mainly of beet sugar, as will be seen from the following table :

Beet Sugar Crop ('000 Long Tons, Raw Value).

Country	Harvesting Period	1938–1939	1945–1946	1946–1947	Estimation 1947–1948
Germany	Sept. Jan.	(1) 2,053	772	994	825
Czechoslovakia	»	622	457	595	400
France	»	850	454	650	700
Belgium	»	195	140	233	220
USSR	»	2,500	1,200	1,.00	2,700
Poland	»	546	190	413	465
Sweden	Sept. Dec.	295	295	290	237
Italy	Aug. Oct.	395	20	270	242
United King.	Sept. Jan.	315	565	600	430
Total for Europe		7,571	4,093	5,545	6,219
United States and Canada		1,660	1,217	1,497	1,764
Other countries	»	1,175	790	1,100	1,175
World Total		10,415	6,100	8,142	9,158

(1) Including Austria pre-war.

The cane sugar crop for the same periods in continents other than Europe was respectively : 17,154 (1938-39), 15,282 (1945-46), 17,964 (1946-47) and 18,064 as the estimate for 1947-48.

Jubilee of the Agronomists' Association in Finland

The Agronomists' Association of Finland, founded in 1897, in Tammerfors, celebrated its fiftieth anniversary on November 27 last. The object of the association was to group together estate managers and officials of agricultural organizations with a view to closer collaboration. In 1909, the Association was extended to admit all qualified agronomists. The Association has been particularly active in regard to practical and higher instruction and has organized improvement courses for agricul-

tural experts. Through its initiative also, the faculty of agricultural sciences of the University of Helsinki obtained land for demonstrations, experiments and tests.

Fertilizers in Belgium

Belgian farmers are utilizing sheep dung for wheat and other crops, particularly on poor soil. It is estimated that 100 sheep raised in pens furnish, in a year, 50 to 60 cart-loads of manure, a sheep producing approximately 500 kg. annually. The following figures show the percentage constituent elements of sheep, horse and cattle manure :

	Sheep	Horses	Cattle
Organic nitrog.	0.6 = 0.8%	0.4 = 0.8%	0.4 = 0.6%
Insoluble phosphoric acid	0.2 = 0.3%	0.1 = 0.2%	0.1 = 0.2%
Insoluble potash	0.7 = 2%	0.7 = 2%	0.4 = 0.8%

The higher percentage of the three basic organic components of sheep manure increases the yield of wheat by over 5 quintals per hectare on farms keeping flocks of sheep of 200 to 600 head.

Production of fertilizers in Norway

In 1947-48, Norway will produce approximately 90,500 tons of pure nitrogen, of which 71,000 tons are intended for export. The raw materials used in manufacture are the nitrogen, oxygen of the air and limestone ; the considerable supply of water-power available in the country makes production costs low.

The pre-war output attained an average of 64,000 tons, of which 90 per cent. was exported.

Norway has to import phosphate and potash fertilizers. As regards phosphates, however, it is hoped to be able to produce in 1947-48, 10,000 tons of $P_2 O_5$, quantity which will cover half the requirements. Moreover, construction plans have already been drafted for a new plant with an output capacity of 5,000 tons $P_2 O_5$ per annum.

Manufacture farm machines in Poland

In 1947, the State plants will manufacture farm machines and implements to the value of 32 million zloty (pre-war), figure which will be increased to 51 million zloty in 1949. Even, however, by doubling these figures and adding the output of private producers, home manufacture would only cover 15 per cent. of the machinery requirements of the country in 1947, and 25 per cent. in 1949.

Short News Items

A national farmers' congress will be held for the first time in **Rome** on December 8, 1947. This congress is being organized by the Italian Farmers' Confederation (Confida,) but the International Board of Agricultural Industries has promised to join and cooperate. Many other Italian agricultural organizations will also take part in the Congress.

The following items will be included in the agenda: (1) re-organization of Italian agriculture, with a view to recovering trade on the world market ; (2) landed property (fondiaria), farming in relation to the new constitution of the Italian State ; (3) economic agrarian aspect of the tax problem and State insurance.

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The Estimate of **the world wheat crop** for 1947 published by the ' Corn Trade News ' is indicated as 462,075,000 quarters (of 480 lbs).

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The **Italian** Maize crop this year is estimated at around 13.5 million qls. as compared with 9.7 million qls. harvested in 1946.

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Official estimates of the yield of this year's cereal crops **in Hungary** show that they are less satisfactory than those harvested last year. The forecast figures in quarters, are : for wheat, 5,060,000 : barley, 2,200,000 ; oats, 1,272,000 ; and rye, 1,886,000 : whereas for last year the figures were respectively : 5,198,000 ; 2,720,000 ; 1,380,000 ; 1,932,000

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The total production of eggs in **Poland** in the current year was 150 million of which 118 million were left for home consumption and 32 million were exported. In 1946 the figures were 79 million for local consumption and 3 million for export.

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The total output of sugar beet in **Holland** is estimated by the Ministry of Food and Agriculture at 1,500 million kilogrammes which is 100 million less than last year's total.

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The **Russian** Press reports that the yield of maize this year is exceptionally high. In the North the crop is cultivated more extensively than it was some years ago. There are large maize areas in North Caucasus and in Bessarabia ; favourable yields are reported in the regions North and East of the Dniester.

The first estimates of the 1947-48 world rice crop indicate a total of about 6,950 million bushels as compared with 6,876 millions in 1946-47.

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According to the Stockholm Radio, the **Swedish** grain harvest will yield only 580,000 tons this year, which represents 60 per cent. of last year's crop (970,000 tons). Discussions are going on in Moscow for the import of grain from the U. S. S. R.

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There has been a very marked recovery in **Italy** in regard to green forage output. Stockfeed is adequate for the moment, but the low stocks of winter feedingstuffs cause much concern. In 37 provinces the quantity of feed in hand is definitely not enough to maintain the livestock during the winter season.

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The official figures given for the hops picked in **Czechoslovakia** are approximately 10,000 centweight (1 centweight = 50 kg.) lower than last year ; the quality, however, is better.

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Wheat sowings appear satisfactory in **Italy.** The figures of the Italian Ministry of Agriculture show a demand for 300,000 qls. of seed-corn which would indicate a much larger area being allotted to wheat in 1948 than in 1947.

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According to official statistics, the 1948 olive oil yield in **Italy** will exceed 2,500,000 quintals which will suffice for home requirements. In addition to this quantity of olive oil, there will be 300,000 qls. of refined olive husks oil, 300,000 qls. oil from Italian grown seeds, 300,000 qls. from foreign oilseeds and oil from pressed seed, and lastly, 100,000 qls. olive oil and seed oil residue.

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Soviet experiment stations are developing new varieties of rice for temperate zones. By the end of the first post-war Five Year Plan the rice crop area in the Soviet Union is expected to reach 750,000 acres.

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The Review of the **French** Ministry of Agriculture (Revue du Ministère de l'Agriculture, No. 8-1947) gives a report on the latest experiences in the prevention of hailstorm damage. Satisfactory results are obtained by shooting at the clouds rocket-like canon projectiles which explode at about 1,200 metres altitude.

ANIMAL PRODUCTION

The livestock situation in Finland

The appended table shows that in Finland livestock numbers dropped considerably between 1939 and 1947. In compensation, the yield capacity has risen throughout the country. During the war, every effort was made to prevent pedigree stallions being commandeered by the army ; while in the case of cattle and other farm animals when stock had to be reduced, care was taken to eliminate first the inferior, old or poor-yielding specimens. Consequently, the average age of the stock is lower than previously. On the other other hand, production will advance as the forage situation improves.

Owing to the keen interest of horse-breeders, horses have again reached pre-war figures, and the increase in the number of young horses would seem to indicate that this advance will continue. The market for draught horses has been so favourable that it has been possible to contract sales abroad for a considerable number of horses, totalling 16,400, sold to the Soviet Union and to Poland. (A certain number are still available for sale).

For cattle, however, the present position differs entirely. There is an appreciable diminution as a result of the war: directly, because in the ceded territories and in the devästated northern provinces the animals perished through war operations and, because stock-owners were forced to slaughter their cattle. Indirectly, the war entailed a reduction in cattle numbrs through lack of fodder and feed, making progressive slaughtering necessary. The consequences are particularly serious since the population increased during the same period by some 160,000.

Sheep numbers have been maintained at the usual level through the efforts made to promote wool production. It is well known, however, that the number of young sheep is falling off, and therefore, it may be presumed that with the return to

normal, the interest in this branch of stockfarming will decline.

Goats, which are only economically important in a few small districts of Finland, show a reduction, though to a smaller extent than for cattle.

Pigs have suffered a very sharp reduction, due to the shortage of products which also serve as food for man, for example, potatoes and cereals. Since, however, the number of sows has already returned to the pre-war level, it will be possible to increase pig stocks according to the feed situation, It should be noted that interest in pig-breeding has advanced greatly from the time potato production has risen.

The feed usually given to poultry also serves to a large degree as food for man, and consequently there was a very appreciable drop in numbers. Hens, however, are now increasing rapidly.

There are no official statistics for fur-bearing animals at the moment, but they are diminishing progressively because of the unfavourable prices which make export prohibitive. The shortage of feed also complicates the situation.

The reindeer herds, which are of primary importance for the inhabitants of the most northerly areas of Finland, have been severely reduced. The exact number of reindeer cannot yet be given, but preliminary data indicate that the war has reduced these herds to a small fraction of their former size.

Husbandry organizing, in Finland, is, in the main the same as before the war. The only change made with a view to breed improvement, is the amalgamation, at the end of 1946, of three important associations for the improvement of the native cattle breed, into one 'Finnish Association for Cattle Improvement' which is located in Helsinki. The work of this Association is to elaborate a general program for improving the three types which form the Finnish native breed of cattle, and draft a general herd list.

In this respect, it should be mentioned that the practice of artificial insemination has only recently been started for cattle in Finland. Five associations have been set up for the purpose.

From the interest taken by stockbreeders in this method, it may be expected that it will be more widely used in the near future, although in such an extensive country as Finland and with such a scattered population, artificial insemination will be employed solely for improving pedigree animals.

The shortage of forage, which necessitated an appreciable reduction in stock numbers, entailed a fall in production. It may be recalled that, before the war, Finland was one of the chief exporters of cattle, pig and poultry products, while now this country has to struggle to raise production to meet home consumption. It should be noted, however, that the very important export trade before the war in agricultural products and eggs depended, to a large extent, on the fertilizers and nutrient fats imported from abroad. At present, it would be desirable to import concentrates in order to obtain a more rapid increase in animal production. In effect, the intention was to purchase 200 million kg. of concentrated feeds, but the lack of foreign exchange stock perforce reduced the quantity imported. An endeavour is now being made to dispense entirely, as soon as possible with foreign feeding stuffs and to improve home forage production so as to obtain the required concentration percentage and albumin.

The shortage of forage may be attributed primarily to the reduced fertility of the fields caused through the want of fertilizers, particularly phosphates. At the moment, the situation is already improving as regards phosphates and potash, but the quantities of nitrogenous fertilizers obtainable only cover a small proportion of requirements. Since, at the same time, it was necessary to reduce the area grown to forage plants to make way for bread cereals, and as it has not been possible to restore meadows — covering an area a little over half that under wheat — to a sufficient degree owing to the shortage of fertilizers and seed, the quantity of forage available has diminished very appreciably. The want of phosphate fertilizer entailed, on the one hand, a fall in cereal yields and, on the other, a reduction in the wintering capacity of clover, with the resultant disappearance of this plant in the meadows. Consequently, the strength and albumin content of the native forage plants, already as a rule very poor, became still poorer. In order to remedy this disadvantage, an endeavour is being made to increase soil fertility and to improve the method of utilizing meadows so as to obtain more effective results. An effort is also being made to render pastureland more productive. Lastly, as regards fodder for winter, shorter alternations are observed for sown grass, although the grass is mown earlier than was customary, in order to avoid loss in strength and albumin content. Above all, however, the A.I.V. method should be popularized, since by this means, using clover which can be grown in brief rotation, abundant albumin yields can be obtained even without nitrogenous fertilizer. Through an increasingly effective instruction and through loans and subsidies granted for building silos, it has been possible to augment the production of A.I.V. silage to double the pre-war level, although the difficulty in manufacturing the chemical solution utilized has prevented the process from becoming more general. The importance of A.I.V. silage for feeding cattle has become ever more marked since it was found that the milk from cows fed this fodder can be utilized for cheese-making.

It should also be recalled that among the difficulties confronting stockfarming there is also the question of shortage of labour. To remedy this

shortage an attempt has been made to generalize the use of milking machines. Other measures have also been taken to economize labour, for instance, the introduction of special foddering methods.

As regards the improvement of cattle breeds, the main objective has always been to obtain the breeds best suited to local conditions. Efforts are being made to increase the yield capacity of milch cows and the butterfat content of the milk, and, at the same time, through selection, to modify the albumin content of the milk in order to meet the shortage in albuminous substances.

In improving horse breeds, the aim is to obtain a good draught horse, strong and suitable for general purposes. Special resistance machines are used to test selected horses; the force expended is recorded by a measuring device.

As regards sheep, attention is now being given to improving types from which superior quality pelts can be obtained. The Finnish native sheep is particularly suitable for the purpose: there are many top-grade specimens and the ewes are remarkably prolific (an average of 3 lambs per year).

LIVESTOCK IN FINLAND.

	in 1939	in 1947	Increase + Diminution —
Horses:			
Over 3 years	312,207	315,416	+ 1.0%
Under 3 years	73,887	88,258	+ 19.4%
Cattle:			
Bulls over 2 years	21,065	13,767	— 34.6%
Milch cows	1,377,840	1,074,327	— 22.0%
Oxen	—	647	—
Young cattle	539,514	477,720	— 11.5%
Sheep:			
Over a year	577,957	587,723	+ 0.8%
Under a year	421,994	399,015	— 5.4%
Goats	9,766	8,925	— 8.6%
Pigs:			
Boars over 6 months	4,976	2.854	— 42.6%
Sows over 6 months	55,186	56.071	+ 1.6%
Porkers	152,170	48,141	— 68.4%
Young pigs 2-6 months	224,822	167,984	— 25,1%
Pigs under 2 years	82,515	60,262	— 27.0%
Poultry:			
Hens over 6 months	2,765,293	1,446,341	— 47.7%
Other fowl	14,412	4,267	— 67.9%
Reindeer	95,536	—	—
Fur-bearing animals (pedigree animals):	approximately		
Silver and platinum fox	8,000	—	—
Arctic fox	5,000	—	—
Vison	17,000	—	—
Mink types	100	—	—

Feedingstuffs in France

The following relevant facts on the position in France as regards feedingstuffs, were taken from an article by Mr Michel Cépède in ' Le Sol '.

" French resources in coarse feedingstuffs (herbage) are increasing and, in a year of normal rainfall, should suffice to maintain livestock at the 1939 level.

This is not the case for other stockfeed. Cereals, tubers and even some forage roots serve to cover the food shortage for human alimentation which has to be given priority.

Likewise for imports, transport should be allotted primarily to carrying food supplies for the population.

There is the question of oilcakes. Production in 1944-45 amounted to approximately 42,000 tons, comprising 15,000 tons from home-grown seed and 27,000 tons from colonial oilseed, and in 1945-46, to 152,000 tons, namely, 10,000 tons from home oilseed and 142,000 tons from colonial oilseed. Imports in 1944-45 were of little account and, in 1945-46, totalled 136,000 tons.

The situation, therefore, is serious, as the balanced pre-war forage stocks show a gross deficit calculated at:

15 milliard fodder units for 1944-45; 5 milliard fodder units for 1945-46 and 3 milliard for 1946. The deficiency in digestible nitrogenous substances (proteins) is still greater and estimated at 4 milliard kg. for 1946.

This shortage in 1946 may be taken as equivalent to 30 million quintals of barley, maize and different oilcakes ".

The author advocates increasing home resources in feedingstuffs by means of machinery and raising yields, by temporary and artificial meadows, avoiding losses in stocking, ensilage and artificial drying, and by livestock selection, since " a poor animal consumes the same maintenance ration as a good one ".

News from Netherlands

Notes sent by the FAO Netherlands National Committee

Compulsory measures for the control of cattle tuberculosis.

Organized control not only of tuberculosis but also of others forms of epizootic diseases, was begun by the Government some time ago already.

Plans were laid to set up health services for animals in all provinces several years ago in order to make the control effective.

The necessary powers were given by a decree concerning the control of tuberculosis in cattle, the " Besluit bestrijding tuberculose onder het rundvee " which was published in the Staatscourant No. 209 of October 27th, 1943. The war delayed the putting of these plans into effect.

According to a statement of the Minister of Agriculture, Fisheries and Food, published in the Staatscourant (Official Gazette) of September 15th, 1947, the decree mentioned above will be put into effect in the provinces of South Holland, Utrecht, and North Holland.

This decree forbids any farmer not affiliated with some health service, approved by the Minister, to keep cattle.

Cattle farmers in these provinces must have their cattle examined this winter.

Thus the compulsory control of tuberculosis in cattle has been put into effect and it may be expected that it will soon include the other provinces.

Declaration of the Minister of Agriculture

The Minister of Agriculture, Fisheries and Food, Mr. G. L. Mansholt, announced in his broadcast address on September 22nd, 1947, that 5 % of potato flour would be added shortly to the mixture used for bread-making. 5 % of potato flour will be added to the flour mixture prepared by the milling industry from October 26th onwards.

This mixture already contains 10 % of maize meal, the remaining 85 % is a mixture of 10 % of domestic wheat, 15 % of domestic rye and 75 % of foreign wheat.

About a fortnight after October 26th, the new mixture will be put into use for baking.

The large supply of slaughter-cattle temporarily provides an extra meat ration but on the other hand less cheese will be available until the supply of slaughter-cattle decreases again. It is also the intention to increase the basic meat ration of 150 grams per week to the former level of 200 grams. The meat shortage in home production will have to be compensated by importation.

Production-index figures of milk and dairy-products

From the production-index figures regarding the foodstuffs industry in the newly-published Statistical Bulletin of the Central Bureau for Statistics, Vol. 1947, No. 68, it appears that the supply of milk to the factories and the production of dairy-products in the month of September 1947 have markedly declined as compared with the previous months. It is true that this decline commonly occurs in autumn, but this year, owing to the drought, the production has fallen off more than normally. For milk this decrease amounts to 33 % as compared with May 1947, 36.2 % as compared with 1947, 35.6 % as compared with July 1947 and 24 % as compared with August 1947. In May 1947 the milk supply equalled the average monthly production in 1938, but was 27 % under the May 1938 production. The milk supply in September 1947 was 32 % lower than the production in September 1938.

The production-index figures of butter, cheese and milk-powder show a trend much about the same as do the milk-production figures.

The following are some comparable figures which are self-explanatory.

	1938	June 1946	May 1947	June 1947	July 1947	Aug. 1947	Sept. 1947
Milk received at factories from the stock-farmers (1) .	100	93	106	105	104	88	67
Idem : corresponding month 1938 . . .	100	68	78	76	84	76	68
Butter	100	81	81	89	91	72	52
Idem : corresponding month 1938 . .	100	58	58	64	71	60	50
Cheese	100	102	85	101	92	73	47
Idem : corresponding month 1938. . . .	100	68	61	68	81	65	44
Milk powder	100	115	111	140	135	98	77
Idem : corresponding month 1938. . . .	100	56	55	68	80	71	102

(1) The figure 100 for 1938 is based on the quantities of processed milk plus the estimated quantities of liquid milk.

Exportation of agricultural and horticultural products

As appears from the newly published Statistical Bulletin of the Central Bureau for Statistics, Vol. 1947, No. 66, containing figures regarding exports of agricultural and horticultural products, the total exports of these products for the first eight months of 1947 amounted to well over Dfl. 282,000,000 (for agricultural products this figure is about Dfl. 131,000,000, for animal products about Dfl. 79,000,000, and for horticultural products about Dfl. 72,000,000). In the corresponding period of 1946 the aggregate exports of these products amounted to no more than Dfl. 110,000,000.

As compared with the average amount of the corresponding period of the pre-war years 1937-1939, the value of the exports of these products for the first eight months of 1947 amounted to 126 %, the total quantity of these products amounting to only 27 % (in 1946 : 13 %).

The following chart illustrates the development of the exports in the periods mentioned :

Exports for the first eight months of	1947			1946		
	Value x Dfl. 1,000	Index figures (1937-1939 = 100)		Value x Dfl. 1,000	Index figures (1937-1939 = 100)	
		Value	Quantity		Value	Quantity
Agricultural products.	130,906	309	74	67,844	160	42
Animal products . .	78,957	56	10	2,972	2	0
Horticultural products	72,438	182	43	39,718	100	31
Total agricultural and horticultural products	282,301	126	27	110,534	49	13

Report of the international animal productiun meeting held at Zurich, October 8 and 9, 1947

The Swiss Husbandry Association convened an international meeting on October 8 and 9, 1947, in order to reestablish personal contacts interrupted during the war. The meeting was held at Zurich where the chief manifestations connected with it also took place, *i. e.*, the showing of products of Swiss stockbreeding at the Livestock Exhibition lasting from October 6 to 18. On October 10 and from October 12 to 15 the members of the Congress were present at the shows held in the chief Swiss breeding regions.

Eighteen official delegations and two hundred and fifty delegates belonging to 25 countries took part in this meeting. Fifteen national reports and a general report had been presented as well as a communication prepared by the Secretary General of the Congress on the history of the attempts made to found an international association for animal husbandry. The national reports summed up the present position of animal production in the respective countries as well as the chief problems arising in them at the present moment. Dr. István Moskovits from the European Bureau, as FAO representative, presented the general report, which summarized the national reports and completed them with data relating to the questions dealt with in the possession of the Temporary Bureau of FAO in Europe. The general report consisted of three parts :

(1) Quantitative and qualitative evolution of stocks and of the chief branches of animal production since the beginning of the war ;

(2) international problems of animal production and particularly the work already undertaken and planned by FAO in this field, and

(3) problems of international organization.

In the absence of Prof. A. Schmidt, President of the Swiss Animal Husbandry Association, prevented by illness from attending the meeting, the chair was taken by Prof. Crasemann of the Faculty of Agriculture of the Federal Polytechnic School at Zurich and Vice-president of the Association. Dr. J. Landis, Director of the Division of Agriculture of the Federal Department of Public Economy, welcomed the members of the Congress in the name of the Federal Council and gave a survey on the development of Swiss agriculture during and after the war. M. Chamorel, Councillor of State and Representative of the Swiss Federation of Stockbreeders Associations, reported on the evolution of Swiss stockbreeding and welcomed the members of the Congress on behalf of the Swiss breeders. After this the board of the Meeting was elected. MM. Crasemann and Rijssenbeek (Netherlands) being appointed Chairmen and Dr. W. Engeler (Switzerland), Secretary General of the Swiss Animal Husbandry Association and Chief of the Herdbook Bureau for the brown Swiss cattle breed, Secretary General.

The Congress held four plenary meetings, during which three papers were read. The first paper bore the title " The international situation in the field of animal production ". The second, by Dr. A. Kiener, Chief of the Animal Husbandry Services of the Division of Agriculture, Federal Department of Public Economy, bore on the present problems of Swiss stockbreeding. The third was a paper by the Secretary General of the Congress giving a survey on the attempts made until now in view of founding an international husbandry association and in which he asked the Meeting to proceed with the work already begun.

Two plenary meetings were reserved for the discussion of the reports presented. During these meetings the national rapporteurs were given an opportunity of making some statements on the problems of animal production existing in their respective countries.

A summary of the chief subjects the Congress dealt with follows :

International Association for Animal Husbandry.

During the discussion most of the speakers spoke on the question, showing great interest in the creation of such an association.

The draft statute adopted by the General Assembly convened at Zurich on October 14, 1939, with a view to founding an international association for animal husbandry was thoroughly studied, but considered largely out of date and needing modification in several respects. During the discussion Prof. Leroy presented on behalf of the French delegation a draft resolution which was ultimately adopted as a basis for discussion and which more or less followed suggestions made during the discussion on the formation of an international association for animal husbandry, *i. e.*, the creation of a private, independent association. It would be organized on a continental basis and would invite all those on each continent having interests in any way connected with animal husbandry to form their own organization. The united continental organizations will then form the World Organization, which will have the capacity of studying inter-continental problems.

After several opinions had been voiced, the Congress agreed on the chief items which were retained in the resolutions unanimously accepted at the closing meeting. According to these resolutions all those who have interests connected with animal husbandry on each continent are requested to establish their own organization. Moreover the preparatory work for the creation of a European Animal Husbandry Association is to be entered

upon immediately. The following countries have been designated as members of the Preparatory Committee of the European Association : Belgium Denmark, France, Hungary, Italy, the Netherlands, the United Kingdom, Switzerland. The Temporary Bureau of FAO in Europe is requested to father the creation of the Association and to intrust its own Animal Husbandry Service with the Secretariat of the provisional organizing Committee.

The Organizing Committee was advised to take the text approved in 1939 as a basis for the drafting of the Statutes as well as the proposals made in the course of the present meetings. The draft statutes prepared by the Preparatory Committee should be sent to the national animal husbandry organizations so as to obtain their opinions on them, and submitted for approval to a Constituent Assembly which will meet when the Vth International Animal Husbandry Congress is held in Paris in 1949.

HORSEBREEDING.

Mr. RIJSSENBEEK (Netherlands) raised the problem of horsebreeding and the question of performance tests. He stressed the need for particular interest being taken in horsebreeding which at present is on the decline in several countries so that this branch of animal production may be re-established on a firm basis. To allow an adequate selection of breeding stocks, performance tests ought to be improved. He observed that in his country much interest was attached to these problems ; a horse show was planned for next September and at the same time a special international meeting entirely devoted to horsebreeding problems would be convened.

ARTIFICIAL INSEMINATION AND BULL TESTING.

Mr. AERSOE (Denmark) presented a report concerning artificial insemination in his country and pointed out the importance to the Danish bull testing stations. Much interest was taken in this statement also. The speakers who joined in the discussion particularly pointed out the difficulties met in determining the improval brought about in stockbreeding by the sires by means of comparing the yield of the cows with that of their dams. Mr. RIJSSENBEEK (Netherlands) and M. HORN (Hungary) declared that in their countries it was very difficult in practice to make tests like those that have been made in Denmark. Moreover they were of opinion that the value of those tests is rather problematical. According to Mr. HORN, a comparison of yields obtained in the different years is of doubtful value, particularly in countries with a continental climate where feeding conditions vary strongly from one year the to other.

ANIMAL INDUSTRY IN THE UNITED STATES.

Prof. RIDDEL (United States) gave a survey of livestock breeding and the problems of animal production in the United States presenting a report sent in by the United States Department of Agriculture.

SPECIALIZED PERIODICALS.

It was much regretted that several periodicals specialized in animal husbandry should have ceased to appear during the war so that at present there are too few of such periodicals, particularly in Europe. The absence of an international periodical specialized in animal production was particularly felt and it was decided to draw the attention of all those interested in Europe in animal husbandry to the European Bulletin of FAO " Food and Agriculture " and to beg them to send contributions to this periodical and to consider it as their international organ until a specialized international periodical could be founded.

NEXT INTERNATIONAL CONGRESS OF ANIMAL HUSBANDRY.

In a resolution adopted at the closing meeting the Congress gratefully accepted the invitation extended by the French Delegation to hold the Vth International Congress of Animal Husbandry in Paris in 1949, the IVth having been held in Zurich in 1939. The programme of this Congress will be prepared by the appropriate French authorities in collaboration with the Preparatory Committee of the European Animal Husbandry Association which will probably meet in March 1948.

First Italian National Animal Husbandry Congress in Brescia

The Italian Stockbreeders' Association convened the 1st Italian National Congress of Animal Husbandry in Brescia on September 11-15, 1947. The very large number of Italian stockbreeders who attended — nearly 600 — indicated the interest taken in this Congress. Besides the Italian circles concerned, Swiss and Dutch delegates also took part in this important event at which the FAO European Bureau was represented by Dr. István MOSKOVITS and Mr. Ralph GERMANN. The main object of the Congress was to set up an organization of Italian stockbreeders and to furnish directives for the future working of this body. The numerous reports presented to the Congress were summarized in three general reports : (1) Measures for the fostering and improvement of animal production ; (2) Livestock sanitation ; (3) Organization of animal husbandry in Italy.

The first general report was given by Prof. R. GIULIANI of Florence, who pointed out that Italian livestock which, in 1938, numbered 24,000,000 head (cattle, horses, sheep, goats and pigs together), at the end of the war had fallen to 19,000,000 head. During the last two years, Italian livestock which, during the pre-war period, had suffered because of the unilateral agricultural policy of the famous

' wheat campaign ', has made great strides, and in the rapporteur's opinion, numbers as many as before the war, though the composition has changed, since the majority of livestock to-day consists of young animals. Prof. GIULIANI considers that the following figures will be attained in five years : cattle 9,000,000 ; horses 1,500,000 ; sheep 13,500,000 ; goats 2,500,000 ; hogs 3,800,000 ; making a total of some 30,000,000 head. These are not excessive figures as forty years ago the Italian livestock patrimony amounted to about 25,000,000 head. On the other hand, difficulties which cannot be underrated will have to be overcome to attain the objective in view, and first of all an adequate supply of feedingstuffs will have to be assured. To this end, it will be necessary to draw up a systematic program ; forage production must be improved and pasture yield increased, the construction of silos promoted and the importation of concentrated feedingstuffs organized. In the imports program, concentrates will have to be given priority over slaughter animals, meat and fats.

Prof. Giuliani then went on to genetic problems; he considered that an attempt should be made to consolidate the breeds already raised in Italy and that, consequently, in-breeding is necessary. Reviewing cattle and horse breeding, he discussed the part played by foreign breeds in Italy. As regards milk production, stockbreeders differ in opinion as to which of the two breeds, Brown Swiss or Dutch, should be preferred, and he endeavoured to explain in what environments and under what conditions one breed was better suited than another. In horse breeding, an effort is being made to generalize the use of draught horses, and at present the Belgian horse is more popular than the Breton. He also discussed the advisability of maintaining State stallion depots, which many breeders consider are not necessary. At this point, the delegate of the Ministry of Agriculture, Prof. De Simone, intervened, saying that it would be inopportune to abolish these depots at present, particularly in the regions where light horse breeding predominated.

Livestock sanitation was amply discussed by Prof. D. NAI of Perugia. He pointed out that the livestock industry, considering the capital invested, amounting to some thousand million lire, is the most important industry in Italy. Losses through epizootic diseases and other disorders, however, are very high and calculated at 250 million lire per annum. The measures employed to date are not effective enough to check these losses ; State measures will have to be supplemented by the cooperation of stockbreeders and, to this end, the collaboration of a strong stockbreeders' organization is imperative. Such an organization should also contribute towards supplying the means to control these diseases.

Prof. N. FONTICCHIA, who presented the general report on the stockbreeders' organization, also stressed the necessity of a national free organization of stockbreeders, until now unknown in Italy, but which has become indispensable, and he indicated the way in which this body should be set up.

The three general reports were followed by a spirited discussion which terminated in a resolution carried unanimously fixing the basis for a central organization of stockbreeders' associations in Italy. This Federation is to concentrate all technical and economic efforts for the welfare of the Italian livestock industry, be free and independent, ensure the collaboration of agricultural experts and veterinary surgeons, and establish close relations with central and local government bodies.

Livestock products review in Europe

Some extracts from the documentation prepared by FAO staff for the Third Session of the FAO Conference at Geneva. (August 25--September 12, 1947).

CURRENT SITUATION.

For the world as a whole, the volume of meat produced in 1947 is not likely to differ materially from the 1946 volume. Adverse weather conditions and continued lack of feed will not permit much increase in the volume produced by European countries ; and several countries will undoubtedly show some decline from 1946. Continental Europe, excluding the U. S. S. R. will produce about 60 per cent of the prewar volume, with the most significant gain expected in France.

Livestock numbers will probably continue to increase in most European countries during 1948. However, the feed supply is likely still to be critically short except for potatoes, and the holding back of large numbers of animals, particularly hogs, for breeding purposes will be limited by the availability of feed supplies and by the attractiveness of prices for slaughter animals or for the feeds which such animals would consume if kept on the farms. On the other hand, considerable evidence exists to bear out the conclusion that there is a strong tendency for individual farmers to rebuild numbers of livestock somewhat faster than is justified in the light of the serious shortages of cereals for human consumption. Cattle numbers in Europe as a whole are relatively high compared with prewar numbers (about 90 per cent), and there is some indication that cattle are being held by some farmers as a hedge against depreciated currencies. Furthermore, the strong demand for milk and other dairy products tends to encourage the maintenance of high numbers of cattle to offset the decrease in yield resulting from lack of grains and proteins feeds.

Consumption of meat in the European countries in 1947 is running at about 35 to 40 per cent below the prewar average, and no material increase in

supplies during 1948 seems likely. Any improvement in the feed supply from indigenous production will tend first to increase breeding stock before affecting production of meat. However, pork production will undoubtedly increase if more feed becomes available either from imported sources or from home-produced feeds.

Exports of meat in 1947 will be about 15 to 20 percent below those of 1946, partly as a result of decreased UNRRA aid and partly because of a decrease in the exportable surplus in some of the exporting countries.

The United Kingdom has agreements with most of the major exporting countries, covering the bulk of the exportable surplus through 1948 and in many cases into 1949, and consequently there would not be much opportunity for the continental European countries to obtain increased supplies of meat through imports, even if they had the purchasing power. A drop in domestic buying power and price levels in any of the major exporting countries would, of course, bring possibilities of larger meat exports.

Importance of livestock.

Compared with the total world production of food, the proportion of animal products is relatively small, amounting to about 20 per cent on a calorie basis. In spite of this, livestock products are extremely important items in the consumption pattern in many parts of the world, and the potential demand for these foods is very high. Their importance in agricultural production is indicated by the fact that income from livestock and livestock products in many countries makes up a large proportion of the total income derived from agricultural commodities. For example, in the years immediately preceding World War II, income from livestock commodities approximated 65 % in Belgium; 85 % in Denmark; 70 % in Poland.

A table giving the summary of prewar livestock numbers and production of meat and milk shows that the number of cattle (in million head) is, for Europe, 110.2 and for U. S. S. R., 48.5; of sheep, 130.8 and 79.7; of hogs, 81.9 and 23.9: that the meat production (in millions of metric tons) is 12.2 for Europe and 3.3 for U. S. S. R., whilst the milk production figures are 105.1 and 23.3 respectively. The calorie intake derived from livestock products is estimated for Europe at 20-25.

Livestock numbers.

Livestock numbers in the principal importing and exporting countries were variously affected during World War II. In the major exporting countries of the Western Hemisphere, livestock numbers, particularly cattle and hogs, increased; whereas in the major importing countries of Europe, numbers were decreased substantially. Availability of feed and favourable prices encouraged production in the exporting countries. Scarcity of feed, particularly concentrates, caused declines in the European countries, the principal reductions being among the grain-consuming animals — hogs and poultry.

Cattle numbers.

In Europe, cattle numbers were maintained at a surprisingly high level during the war, the overall decrease anounting to only 10-12 percent. Apparently no large proportion of the cattle had to be liquidated to supplement food supplies, and cattle could be maintained on roughage which was not in demand for human food. Slight decreases have occurred in some countries during the past two years, but most countries are again showing some increase. Poland and the Balkan Countries suffered the greatest decline in cattle numbers during the war, with an average decrease of 45 per cent — Poland, itself, showing a decrease of more than 60 percent. In the United Kingdom and Ireland, on the other hand, numbers increased during the war by about 7 or 8 percent; and in Belgium, Denmark, Norway, and Sweden at the end of the war they were very close to the prewar average.

Pigs numbers.

World hog numbers at the close of World War II were estimated at 225 million head, a decline of 19 percent below the 1935-39 average. In European countries the reduction of hog numbers during the war was severe, amounting to an average of 45 % as compared with the period 1935-39. Numbers were reduced most in those countries where food supplies were lowest and where production of hogs depended to a great extent on imported feed. In Germany, feed grains and potatoes which normally were fed to hogs were diverted to human use or were unavailable from outside sources, with the result that hog numbers during the war were reduced by an estimated 50 or 60 percent. The same was true in the United Kingdom, France, Poland, Hungary, and Austria where the decline in numbers amounted to more than 50 percent. Denmark and Belgium showed declines of about 45 percent, whereas in Norway, Sweden, and the Netherlands, reductions were less than 35 percent. In 1947 most of the principal pork-producing countries of Europe showed improvement in numbers except Denmark where declines continued because of lack of feed and a somewhat unfavorable hog-feed ratio.

Sheep numbers.

They were estimated at 714 million head in 1946, about 5 percent below the 1935-39 average. Floods and cold weather in 1947 reduced numbers substantially in the United Kingdom, with estimated losses running to about four million head and bringing the numbers to the lowest point in 80 years.

For Europe as a whole, numbers in 1947 were about 80 per cent of prewar, with the most important declines in the United Kingdom, Rumania, Bulgaria, Italy, and France. In the U. S. S. R. the numbers in 1947 were about 90 percent of the 1935-39 average.

MEAT PRODUCTION.

In Europe, the production of meat in 1945 was only 57 percent of the prewar leval. Decreases during the war occurred in all European countries except Ireland, which showed an increase of 13 percent over the prewar average. The biggest decreases occurred in central and southeastern Europe, where livestock numbers, particularly hogs, were drastically reduced. For example, Poland's meat production in 1945 was only 20 percent of prewar. Declines in production were smallest in northern Europe although even here 1945 production was only 70 percent of the prewar average.

Shortages of feed in Europe will tend to continue to hold pork production down : and overall production of meat in 1947 is not likely to exceed 1946 production by a significant amount. The principal increases are likely to occur in France, and possibly in Germany. A significant decrease (8 or 9 percent) is likely in Denmark because of shortages in feed, high wage rates of farm labor, and a somewhat unfavorable feeding price ratio. Furthermore recent estimates indicate that the United Kingdom 1947 production may be down 15 to 20 percent from the 1946 volume.

It should be kept in mind that there is undoubtedly some rebuilding of breeding-stock numbers throughout Europe and that current slaughtering, particularly of cattle, is somewhat lower than it would otherwise be.

MEAT CONSUMPTION.

In Europe, consumption is currently averaging about 24 kilograms per person per year or about 63 percent of the prewar average. Available imports of meat permit the United Kingdom to consume at a rate only 10 to 15 percent below the prewar average. On the other hand, in many countries such as Poland, Germany, Greece, Austria, and the Netherlands, consumption is running at less than one-half of the prewar average. In Germany it is estimated to be only one-third of the 1934-38 level.

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On October 16, 1947, the Swiss Federation of Brown Cattle Breeders celebrated the 50th anniversary of its foundation with a grand display held in Zurich. The Federation today comprises 151 breeders' associations and 30,178 members : 134,851 cattle are registered in the Herdbook which dates back to 1891.

MILK AND DAIRY PRODUCTS

Milk and dairy products in the 3rd quarter of 1947

Extract from Report 155 *on the international market of milk and dairy products published by the Information Bureau for Prices of the Swiss Peasant Union, Brougg* 1947.

In *Sweden*, the drought reduced forage supplies, checking the increase in milk production which had been constant in recent years. Since June, deliveries of milk to the dairies showed a steady decrease, compared with last year's figures, of 0.7 per cent. in June to 5.3 per cent. in August.

Despite the smaller deliveries of milk to the processing centres, cheese production remained higher than last year's output. Butter production was below the 1946 summer level.

In *Denmark*, owing to the drought there was not sufficient forage for the livestock. In some parts of the country, the feed level for cows had fallen close to starvation point. Consequently, the milk yield decreased appreciably. Towards the end of the quarter, the decline in yield in the whole country, was computed at 25 per cent. Forage roots had to be given much earlier than usual, and thus winter stocks are being diminished. It has been necessary to reduce herds considerably. Since May, the figures for milk and butter production have been lower than those for the same period in 1946. During the 3rd quarter, compared with 1946, butter manufacture dropped by 22 per cent. The home market absorbed 25 per cent. as against 32 per cent. during the 2nd quarter of this year, and 37 per cent. for the 3rd quarter in 1946. Thus, the home consumption of butter was greatly curtailed. The manufacture of condensed milk was also cut sharply, The sale of fresh milk was 8.5 per cent. lower than last year, while that of fresh cream shows an increase.

In *Germany* (British Zone : Schleswig Holstein. Lower Saxony, Weser Ems, Westphalia and the Northern Rhineland Province). According to the program drafted by the Military Government and the Board of Food and Agriculture, the number of cattle which, in the British Zone, totalled 4,582,000 head in December 1938, was to have been brought to 3,982,000 head by December 1947. The census of July 3, 1947 showed that stocks had already fallen below this minimum figure. Stock numbered 3,878,000 head, namely, 84.6 per cent. of the 1938 total. Since June 1946, cattle herds have been re-

duced by 252,800 head, and milch cows by 140,800. This reduction is due to the difficulty in obtaining forage supplies. In the north west of Germany, the hay crop only averaged a third of the normal quantity. On the other hand, the yield in catch crops, root crops, and also the second pasture cutting were so limited this year because of the drought, that forage supplies are not even sufficient for the present reduced herds. This shortage, therefore, will entail further slaughtering. It will be necessary to import fertilizers and concentrates in order to maintain cattle stocks and improve milk production. There is a very sharp drop in butter production, with the result that supplies of fats, already in a precarious state, will diminish still further in the coming months. In August, owing to the decrease in milk output, cheese-making which, until then had been given a considerable stimulus has to be restricted. In order to augment the supply of fresh milk on the market, practically all cheese-making had to be suspended in September. Other dairying regions of Germany also suffered from the drought, and as much as 30 per cent. reduction in milk production is reported.

In the *Netherlands*, the exceptional weather conditions damaged pasture growth very severely. Stock-owners in many districts were obliged to fodder their animals during the autumn months. Catch crops also suffered from the drought and the quantity of forage ensiled is small. Consequently, herds will have to be reduced considerably for the winter. Since August milk production continued to fall, and, in September, throughout the country there was a decrease of 15-18 per cent. compared with the same period of last year. Owing to this decrease in milk and cheese production, rations had to be reduced as from September 1947. Adults received a monthly ration of 7 litres of standard milk instead of the 8 litres allotted during the summer. Skim milk was also rationed. The monthly ration of cheese was reduced from 400 to 200 gm. per month per adult. The amount of butter in cold storage will not be sufficient for regular distribution during the coming months. An attempt will be made to cover the shortage in fresh milk by means of skim milk powder. As regards condensed milk, production is entirely for export. The fall in production has obliged the authorities to revise completely the program already drawn up for the export of dairy products.

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The Danish Minister of Agriculture declared in Parliament that this season, Danish production of butter and bacon would be respectively 17,000 and 20,000 tons less than in 1946-47. The 1947-48 output for butter is estimated at 118,000 tons as against 135,000 tons the previous year, and for bacon at 120,000 tons instead of 140,000.

AGRICULTURAL INDUSTRIES

Genista fibre

The dearth of textiles in France has given rise to a new industry since 1942 : the extraction of fibre from genista. Two varieties are used : the Spanish broom and the ordinary common broom. With the present limited means, the monthly crop of the first variety amounts to 4 to 500 tons of broom straw obtained in the Mediterranean zone, and approximately 1,250 tons of ordinary broom picked during the period preceding flowering in the Landes, the Central Plateau, Poitou, Brittany, Orleans region, Yonne, etc. The natural stands of broom in France cover an area of 8 million hectares.

The trend in broom fibre utilization is directed towards the manufacutre of mixed fabrics in which the broom fibre is woven with wool, cotton or flax. The manufacture of pure broom fabric is not yet economically satisfactory, as this industry is still in the initial stage.

The strength of fabrics containing broom fibre is due to the fact that the breaking length is three to three and a half times greater than that of wool. The thermic value of broom-wool material is nearly as high as that of pure wool. The mixed fabric is usually composed of 70 per cent. wool and 30 per cent. broom fibre. Broom is also easily dyed.

In 1946 a start was made in cultivating broom in order to reduce cost of picking and consequently the cost of the manufactured material. Cultivated in waste land, a yield of 10 to 14 tons of broom straw per hectare, can be obtained, while wild stands only give 500 to 1,500 kilograms. Broom does not require fertilizer, and its root system contributes to the loosening of the top and subsoil.

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The World Fiber Suvey, issued by FAO Headquarters in Washington in August 1947, publishes a study on the question of world fiber economics, both as regards natural fibers (cotton, wool, silk, soft fibers such as flax, hemp, jute, and hard fibers such as abaca, sisal, henequen) and artificial fibers (rayon and protein fibers, synthetized polymers, glass fibers). It advocates a system of planned adjustment of productive resources and the basing of all respective programmes on measures which aim at an improved equilibrium by means of expanding world demand rather than restricting supply.

Bee-keeping in Switzerland

Switzerland ranks among the foremost bee-keeping countries. There are two important apicultural associations : ' The French Bee-keeping Association ' for French Switzerland, and the ' German Swiss Union of Bee Friends ' for German Switzerland. The latter comprises proper local branches, while the units of the French Association are independent and affiliated to the Association. Each association publishes a journal, the ' Schweizerische Bienenzeitung ' and the ' Bulletin de la Société Romande d'Apiculture '. Each organizes courses and lectures among the hives or in the laboratories. There is an apicultural library ; bee shows are arranged and propaganda work is carried out. The associations, with the approval of the public authorities, also check the quality of the different honeys, and deal with insurance against bee disease, insurance which is compulsory for all members. Bee inspectors proposed by the bee-keeping societies, but who are attached to the Veterinary Division of the Ministry of Agriculture, have full powers and authority to visit the hives and organize effective means of controlling bee diseases. Samples are analyzed in one of the five laboratories of the Liebefeld Centre (Bern commune) where very important scientific work on apiculture is done.

Bee-keeping Congress

A national Bee-keeping Congress was held from November 25 to 27 in Rome where representatives of 65 Italian provinces met. These representatives unanimously approved the following order of the day : The Congress is of the opinion that the exercise of bee-keeping should be considered of public utility and that, because of the close link between bee-keeping, agriculture and the land, it cannot be excluded from agricultural activity in general. The Congress passed the resolution that :

(1) Apiculture be declared of public utility and that bee-keepers be exempted from income tax ;

(2) Bee-keepers be exempted from paying a licence fee.

Date meal

The manufacture of date meal is increasing in Algeria. For this purpose, use is made of the common dried dates found in abundance in this country (the annual crop totals approximately 500,000 quintals) and which are only consumed by part of the population. The very low price of these dates facilitates commercialization. A start had been made before the war in the manufacture of date meal, also prepared mixed with other products. Several European countries, including the United Kingdom and Switzerland, imported date meal. Dates are very rich in nutrient substances (sugar 68 to 70 per cent. ; phosphates, magnesium salts 10-12 per cent.) ; they also contain vitamins A, B, C and D. The meal, obtained without any chemical change in the sugars, has the same properties as the fruits, and is even richer than the fruit through the elimination of the greater part of the moisture content (16-17 per cent. in the fruit). Date meal contains 55.10 per cent. saccharose, 18 per cent. glucose and 2.15 per cent. cellulose.

Tobacco production in Italy

Tobacco production in Italy this year will be appreciably higher than last year owing to the extension in area cultivated. On comparing the yield ob tained in 1946 and the estimates for 1947 with the 1945 crop, a marked recovery in tobacco cultivation in Italy is seen. The following figures are given by the Central Institute of Statistics : 22,483.69 ha. were cultivated in 1945 and the yield amounted to 170,924.50 qls. : in 1946, 42,959.32 ha. with 433,185.45 qls. For 1947, estimates are 54,863 ha. with a yield of 676,500 qls.

Poland. The potato processing industry

There are 16 plants, employing 4,600 workers, now engaged in potato processing. Production in 1947 amounts to 20,000 tons of potato fecula, 2,000 tons of dextrin, 1,200 tons starch, 6,000 tons syrup and 250 tons of artificial honey. 850 tons of fecula and 500 tons of dextrin are reserved for export.

ECONOMICS AND MARKETS

The international meat trade in Europe

Extract from document prepared by FAO staff for the the Third Session of the FAO Conference at Geneva. (25 *August*-12 *September* 1947).

Denmark is the largest exporter of meat among the European countries, and prior to the war about 58 percent of its production was exported. In 1946, it had restored its production to the point where about one third could be exported without

reducing consumption significantly below the pre-war average. Although 1947 production will be below 1946, exports are expected to increase by about 4 or 5 percent at the expense of consumption.

Prior to the war the United Kingdom imported about 70-80 percent of the total meat entering international trade, taking 94 percent of the world's total exports of lamb and mutton, 76 percent of the pork, and 65 percent of the beef and veal. It continues to be the leading importer. Several other European countries (the Netherlands, Sweden, Poland, Hungary, Yugoslavia, etc.) which, prior to the war, were net exporters of meat, had their production reduced so much during the war that meat had to be imported in 1946 and 1947. Many received substantial help from UNRRA.

International trade in live animals has always been small. During the period 1936-39 about one million head of cattle and about the same number of hogs crossed international boundaries in Europe. In the Western Hemisphere, international trade in hogs and sheep has been practically nil. Movements of cattle have been confined largely to exports from Canada and Mexico into the United States and exports from Argentina into adjacent South American countries.

Fruit transport by British private companies

Fruit and early season produce are flown from North Italy to Great Britain by British commercial planes. Every day a dozen air loads cross the Alps. The London Aero and Motor Services (L. A. M. S.) sends daily — except Saturday — two planes to Bergamo and one to Verona. The planes take from 3 hours (non-stop flight) to 4 and a half (stopping at Marseille or Geneva). The produce is loaded rapidly, one hour to load 7 tons of fruit. The planes (Halifax) have a total weight, including load, of 29 tons. The produce is already on the way to the fruit markets one hour after arrival in England. In two months, the L. A. M. S. has transported about 1000 tons of vegetables and fruit from Italy to the United Kingdom.

Commercial Agreements

O Since the war, the **United Kingdom** has entered into several long-term bilateral agreements with exporting countries. Its agreement with **New Zealand**, which extends through September 1950 provides that the United Kingdom shall receive all exportable surplus. Prices are subject to review each two years. Australia has agreed for the period ending September 1948 to send the United Kingdom its exportable surplus except for such other sales as are mutually agreed to by both countries. Payment is in sterling, with 97 ½ percent to be paid on shipment and the remainder in 28 days after arrival. Prices are to be reviewed each two years, those for 1947-48 being subject to review between May and August 1947.

O The **United Kingdom** agreement with **Argentina**, covering the period October 1946 to September 1950, specifies that the United Kingdom shall receive 83 percent of the 1946-47 exportable surplus and 78 percent of the 1948-50 exportable surplus. As in the agreements with Australia and New Zealand, prices are subject to review every two years.

O The **Canadian-United Kingdom** agreement calls for a minimum quantity shipment each year at specified prices for the whole period. For example, in the case of beef the Canadian Government has agreed to ship not less than 120 million pounds (54,000 metric tons) of carcass beef during 1947 at a price of $ 21.10 per hundred pounds for medium-quality steer carcasses, f. o. b. Canada. The 1947 bacon contract calls for 350 million pounds (159,000 metric tons) of bacon and ham at a price of $ 27.00 per hundred pounds for Grade A Wiltshire, f. a. s. Canadian seaboard until September 1947, and $ 29.00 thereafter to the end of 1948. A commitment of 40 million pounds (181,000 metric tons) has been made for 1948, specifying that 75 percent shall be in Wiltshire sides. The Canadians have also entered into agreements with the United Kingdom covering mutton and lamb, offal, and casing.

O **Denmark's** agreement with the **United Kingdom** covers the period April 1946 to the end of September 1949, and specifies that Denmark will ship 90 percent of its exportable surplus of bacon in 1947-48 and up to 100,000 tons, but at least 90 per cent of the exportable surplus in 1948-49. The prices are fixed in shillings per cwt. (112 pounds), f. o. b. Denmark, at 161 shillings for the period February 1947 through September 1948, and minimum of 120 shillings from October 1948 through September 1949.

O Other agreements on a bilateral basis also exist. **Denmark** has made commitments with the **Finnish**, the **French**, the **Dutch**, the **Norwegian**, the **Polish**, the **Czechoslovakian**, the **Swiss**, and the **Swedish** Governments calling for Danish exports of meat, or livestock, or both. Similarly, agreements have been reached among some of the other European countries, specifying given qualities of meat to be sold at specified prices or in exchange for certain commodities.

O At the beginning of October, after eight days' talks between British and U. S. Military Govern-

ments on one side and a Bulgarian delegation on the other , a plan for the revival of trade between **Bulgaria and the western zones of Germany** was announced. Contracts would cover ore, tobacco and food products from Bulgaria, which is interested in chemicals, pharmaceutical supplies and machinery from Western Germany.

O Yugoslav authorities express their confidence that an **Anglo-Yugoslav** trade agreement covering the exchange of goods valued at about 25 million sterling will be signed soon. It would run for five years with Yugoslavia exporting mainly foodstuffs in exchange for machinery.

O By virtue of the trade and navigation agreements signed between **Denmark and USSR** on July 8 and August 17, 1946, and which will terminate on January 1, 1948, Russia undertook to deliver 60,000 tons of rye at a price of about 77 crowns per ton and 40,000 tons of barley at about 51 crowns per ton, in exchange for 7-8000 tons of butter and 2,000 tons of fat. Denmark thus succeeded inobtaining the bread cereals required to meet her needs. At the same time, this agreement enabled Denmark to compensate the deficit in her butter exports to England. During the period January 1 to November 2, 1947, Denmark exported 41,996 tons of butter to England as against 43,866 tons during the same period last year ; consequently, exports to this country have dropped. On the other hand, deliveries to Russia have more than doubled. During the aforesaid period in 1947, 11,600 tons of butter, compared with 5220 tons in 1946, were exported to Russia.

O The Danish Foreign Ministry announced on October 7th that a trade agreement, valid for one year, had been concluded with France. **Danish** exports to **France** would comprise ships, horses, meat, fat, tinned milk, cheese, butter, potatoes, foot-and-mouth vaccine, fish and machinery worth about 77 million kroner. French exports to Denmark would include phosphorite, potash, rolling-mill products, soda, textiles, wine, chemicals lorries and machinery.

O Under a trade agreement signed in Prague, in October 1947, **Czechoslovakia** will supply **Greece** with hides, wood and textiles in exchange for tobacco, ores and oranges.

O Owing to the excellent crop prospects, **Australia** has offered to sell 75 million bushels of wheat and flour to the **United Kingdom.** Further quantities may be offered when the final crop estimate becomes available. This purchase will permit Australian wheat and flour to reappear in the United Kingdom market without prejudicing existing commitments to supply Eastern countries. The resumption of imports will not, however, make it possible to abolish bread rationing, since it is still necessary to reduce imports from foreign hard currency sources. No Australian wheat is likely to arrive until late next spring.

O Mr. Strachey, British Minister of Food, speaking about economic relations between **Britain** and **Russia,** said that the two countries were mutually complementary rather than competitive in the economic field. " Russia has food and timber to sell ", said Mr. Strachey, " wheat, barley, canned fish and wood for building and pit-props. These are things we need. We have manufactured goods of all kinds to sell : steel rails, engineering products, timber cutting machinery, tinned plate, machine tools, ships, and the like. Surely it is not beyond the wit of man to devise a way by which an interchange of these commodities can be arranged to the immense benefit of both countries ".

SWISS IMPORTS OF SEED POTATOES.

The considerable imports of seed potatoes being made by Switzerland viz., 44,000 tons from Holland, 21,500 tons from Denmark and smaller quantities from Czechoslovakia, do not mean a change in agricultural policy in regard to seed potatoes.

Although climatic conditions in Switzerland do not seem to favour an increased production of seed potatoes, open field tests will lead to a lessening of the causes of degeneration, so that it will not be necessary to make fresh sowings each year, as has been the case in 1947-48.

The current imports, which represent about one-third of the nation's needs, have been made necessary by the last summer's drought.

The farmers have asked mostly for the variety known as Bintjes for their 1948 sowings, as it has stood up to the drought comparatively well. 17,000 tons of this variety have been ordered from Holland and 12,000 from Denmark.

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In 1948 Poland desires to import 60,000 tons of oilseeds and approximately 8,000 tons of fish oil, in order to enable the national industry to start margarine manufacture.

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A Decree was passed on September 12, 1947 for the establishment of an experiment and low temperature research station in Algeria. Authorization has been given to raise a loan of 30 million francs for the necessary expenditure.

FISHERIES

The F. A. O. Fisheries Division and the European Bureau of F. A. O.

Although it is to the land that we mainly look for our daily bread, the oceans, the lakes and the rivers have always been an important source of food for a great part of the world's population.

In earlier days fish played a bigger role in the world household than they do now. When crops failed people turned to the sea, which was ready to help in a crisis. To-day people often seem to forget to turn to the seas to alleviate famine.

The Food and Agriculture Organization realized the value of sea-food in the world diet ; and the Interim Commission on Food and Agriculture appointed a Technical Commission on Fisheries which duly presented a report to the Commission.

At the first F. A. O. Conference, held in Quebec, the importance of fish as a source of protein and of medicinal and nutritional oils was fully recognized. But later there appeared to be a possibility that problems of land reconstruction and failures of crops, would again obscure the fisheries question.

The Director General of F. A. O. has appreciated this situation and established a Fisheries Division of the F. A. O. in Washington. The Director of this Division is Dr. D. B. Finn, former Deputy Minister of Canadian Fisheries, and a well-known fisheries bio-chemist.

Since world fisheries are so much less well organized than world agriculture the Division is faced with a gigantic task. With the very limited financial means at the disposal of F. A. O. in general, and the Fisheries Division in particular, the task must be tackled by instalments. The fulfilment of the objectives will to a very great extent depend on better understanding of the importance of fisheries in the world's food supply, both by the countries directly involved, and by the world organizations concerned with the people's food and standards of living.

The objectives of the Fisheries Division have been detailed in many documents arising from F.A.O. Conferences and in Headquarters publications. In an address by Sir John Boyd Orr, to the American Fisheries Institute in New York last April, the Director General summarized these objectives as follows :

The F. A. O. World Survey shows that within the next 25 years world production of food must be increased over 100 % above the prewar level to meet the needs.

The biggest increase must be made in food rich in protein, minerals and vitamins. There is no better source of protein and some of the essential vitamins than fish, and fish can be produced at less than half the cost of, for instance, meat. Besides the direct contribution of food and medicinal (vitamin) oils, the fisheries produce valuable proteins for cattle food.

It is for F. A. O., then, to help develop fisheries and markets for fishery products. To help introduce scientific assistance to fisheries, and the conservation and development of fish resources. To encourage better organization in fisheries by assisting the development of existing and new organizations and their coordination on a world basis, as a means of ascertaining the potentiality of the sea as a provider of food, and as a step towards the cooperation of all governments for a stabilized fishing industry.

The Director General suggested that the various fisheries organizations could create an international body, which could give great assistance to the organizations themselves and to F. A. O. on its work for wider utilization of fish in the world household.

F. A. O. 's Fisheries Division took up as one of the primary tasks the study of the salt fish trade, and presented to the Conference at Geneva last August the first progress report.

Another important line is the formation of world-wide organizations for scientific maritime exploration. Only one such organization has been established since 1902, under the name of the International Council for the Exploration of the Sea, with Headquarters at Copenhagen : it works mainly in the North Atlantic, the North Sea and the Baltic. It has done a very good job, and will be a pattern for similar organizations to be formed in other parts of the world.

Besides these and other larger projects to be tackled by the Fisheries Division, there are many apparently smaller jobs which are however of importance in the short term programme. This work will have to be carried out in different parts of the world in cooperation with already established bodies where such exist, or direct from Headquarters at Washington where they do not exist or are inadequate.

The European fisheries are perhaps best organized, within and between the producing countries, in the scientific field, as for instance in the Interna-

tional Council for the Exploration of the Sea. Cooperation between countries in the commercial field is also contemplated.

The European problems are different from those of other hemispheres. About 90 % of the world's fisheries production derives from the northern part of the globe, equally divided between the North Atlantic and the North Pacific. Japan had the largest fish production in the world, but the Soviet Union may now take its place. The third largest producer is the United States. To the south, China and India are the leading countries. All these countries are heavily populated and need most of their fish production for domestic consumption.

In Europe, with half of the world production, the situation is different. The leading producers are small countries for whom fish is not only an important source of food, but just as important a source of foreign exchange. They produce fish for export to other countries.

The bulk of these exports have been in the form of salted fish. The salted and dried cod and related species have mainly been exported to countries with tropical and subtropical climates, and the salted herrings mainly to countries in Eastern Europe and to Russia.

With the increase of refrigeration and other modern ways of food preservation, the fishing industry is turning towards new methods: the freezing of fresh fish. This will be followed by changes in markets and a complexity of new problems arise for the industry. The normal development of this change in production and marketing is greatly hampered by the tragic results of the war in Europe. The fresh-frozen fishery products must be transported, stored and distributed under low temperatures, and adequate refrigerated transport equipment and cold storage must be developed. Facilities are mostly lacking, but great efforts are being made to solve the problem. F. A. O. is lending a hand in this work, and is ready to offer technical help to any European country which wants to improve its transport and storage system for the preservation of perishable food. Hand in hand with better transportation in Europe goes the work for better distribution, and F. A. O.'s Fisheries Division is prepared to give all possible assistance in promoting the consumption of fish as a nutritious part of the people's diet. Until progress is more advanced in the field of refrigeration, the fishing nations of Northern Europe must still rely upon old methods and old markets for their production and be prepared to face many difficulties. The adverse monetary situation in Europe may even encourage nations which have no natural urge to do so to secure their own supplies in distant waters. Since the unplanned exploitation of fishing grounds is bad policy, and since conservation of food resources ranks high in the F. A. O. programme, the Fisheries Division is assisting in the study of these problems of the fishing industry.

There may be fishing grounds yet unknown or unexploited, and by forming Regional Councils for scientific exploration F. A. O. will assist in finding and developing new fields for the harvest of fish.

To clarify the position of the European fisheries and their present problems, F. A. O. called a meeting of representatives of European countries interested in production as well as consumption of fishery products. At this meeting, held in Rome last June, there was established an F. A. O. Study Group on European Fishery Problems and the pertinent problems were discussed in detail.

The study group made a number of recommendations for the approach to be made by the F. A.O. Fisheries Division. The Director of the division decided that such approach should be made by a Specialist on Fisheries attached to the F. A. O. European Bureau in Rome. To this end the Director General requested of the Norwegian Government the services of the Fisheries Attaché to the Norwegian Embassy in Washington, Nils Jangaard the writer of this article.

The European Fisheries problems will be tackled in accordance with the recommendations of the Study Group, which give high priority to transport, storage and distribution of fishery products in Europe.

Steps have been taken to study the shortcomings in the transportation system and the ways in which F. A. O. can assist the transport organizations to overcome present difficulties and rationalize the transport of perishable food within Europe. Steps have also been taken to investigate the possibility of building adequate cold storage facilities in connection with rationalized transport of fresh and frozen fish and other food.

The services which F. A. O. can render to the solution of these matters will mainly be technical assistance in planning and construction and advice as to methods of handling, packaging and distribution of perishable food. The assistance will therefore greatly depend on the initiative taken by the member countries themselves. As an example, the F. A. O. National Committee for Czechoslovakia has asked for expert advice in connection with the construction of new freezing and cold storage plants in that country. F. A. O. will send experts to give such assistance and if other European member countries need similar technical help to develop their cold storage facilities, F. A. O. will endeavour to assist them.

Pisciculture in the Belgian Congo

The diet of the majority of the natives in the Congo is, as a rule, deficient in proteins. This deficiency could be remedied to some extent through

the resources of the remarkable water regime of this Belgian colony, provided, however, that the methods of fishing and preservation employed by the natives are improved.

The ichthyological wealth of the Congo should not be exaggerated ; there is much water, the Colony is rich in fish, but the quantity per unit volume is less than that of the rivers in Belgium.

In the Belgian Congo, the rudimentary fishing methods of the natives are little affected by the few legal provisions in force.

According to the observations of naturalists, the quantity of fish in the rivers, marshes or lakes does not appear to increase to any appreciable degree. This is due to the faulty native fishing methods and the numerous enemies, in particular, crocodiles, which are found in profusion in some rivers, birds, otters, etc.

Congo fishermen usually belong to tribes devoted to fishing, which is practically their sole occupation.

Their methods are primitive, irrational and the results are frequently disastrous for fish reserves. They employ unorthodox systems and fail to understand that the small fish in their catch should be thrown back into the water ; fishing is particularly intense during the spawning season, as the main object is an abundant catch, no thought given to the serious consequences of their pillage. They dam the rivers when the water is subsiding and collect in their nets even small fry, after which they abandon the traps and leave quantities of fish which have escaped capture to die on the river bottom as it gradually dries up. Consequently, they reduce the potential increase of the aquatic population to a considerable extent.

Nearly all the natives are very fond of fish ; they prefer it fresh, but will also eat it dried or smoked. Unfortunately, the methods used for preserving fish are not always very effective, and it is not unusual in the markets and food centres to see smoked or dried fish putrifying or crawling with Anthrenus larvae which destroy the flesh leaving only the skin and bones.

Preserving methods are generally limited to rubbing or sprinkling the fish with salt which is not always of the best quality ; the fish is then left to dry. When the catch is abundant, all the fish cannot be treated the same day, and consequently part is left over to the next day. Since conditions in the tropics are ideal for the development of putrefaction micro-organisms, a considerable percentage of the catch will be inevitably badly prepared and the resultant product defective, more especially as atmospheric conditions are frequently too uncertain to ensure proper fumigation.

Desiring to secure an adequate nutrition for the natives, the Government is making increasing efforts to remedy this situation. Before the war, a Decree containing general and special provisions was passed on April 21, 1937 with a view to controlling fishing in the waters of the Congo. This control is somewhat rudimentary, as very little is known of the classification and biological phenomena of the fish. Measures include prohibition from fishing with the use of explosives or narcotics throughout the Congo, fixing of the minimum size of the mesh of the nets, establishment of preserves, etc. No attention has been given as yet to the question of the periods when fishing should be prohibited, or of the species which should be spared during certain months of the year.

Besides these official steps, numerous efforts were made singly by private enterprises or individuals ; unfortunately, these efforts were scattered, and although successful results were obtained in a fair number of localities, it would not have been advisable to continue in this direction.

It was essential, therefore, to start studies immediately with a view to standardizing methods, in order to make rational fishing general, so as to obtain the maximum effect consistent with maintaining fish stocks and with the welfare of the natives.

To this end, in August 1946 the Belgian Government sent a group of experts to the Congo to examine the question in all its aspects and to begin experiments.

The intention of this group was to clear up the problems regarding fishing in open waters and pisciculture in enclosed waters. The study of fishing in open waters is a long and exacting task, based on the exploration and systematic classification of the fauna and flora of the Congo waters. The aim will be to maintain the piscicultural balance of these waters, while obtaining the maximum production without depredating the fish reserve. This problem can only be solved gradually; measures will be taken to protect spawning-grounds in order to prevent fishing of too young specimens and to control fish pests. Rules will be set up for a more intensive rational fishing by the improvement of native methods, particularly with the use of better fishing tackle, which will enable the natives to obtain a more abundant catch with the same or often less effort. The high cost of fish would consequently be lowered while, at the same time, the fishermen's takings would be increased. Modern methods of conserving fish will also be improved and adapted to local conditions.

As regards pisciculture in enclosed waters, the experts investigated the types of fish which can be bred on an industrial scale, and will decide upon suitable breeding methods. The productive capacity of the different Congo waters will be fixed and various types of pools will be set up.

This extensive program will only be put into effect gradually. Very effective means are being employed and the preliminary results augur well for the future. A budget of a hundred million francs, to be divided over several years, will be allotted. Funds will be obtained by means of a

liberal grant from the administration of the colony and subsidies from the colonial associations particularly interested in the enterprise, but the greater part will be furnished by taxes levied on the sale of fish.

The native population of the Belgian Congo totals about 14 million. According to recognized food standards, the minimum annual quantity of proteins required may be calculated as follows :

5,530,000 children x 360 days x 60 gm.	= 121,107,000 kg.
8,470,000 adults x 360 days x 76 gm.	= 232,078,000 kg.
	353,185,000 kg.

For a rational diet, the League of Nations Committee established that 20 per cent. of the protein intake should be of animal origin. Since beef supplies, on an average, 20 kg. of protein per 100 kg. of meat, 353,185,000 kg. of meat would be needed to meet protein requirements in the Congo. Calculating the average meat yield of a beef animal in the Congo at 250 kg., 1,412,520 head of cattle would have to be slaughtered each year, which, under Congo conditions would represent a stock of 14 million head.

Statistics for 1946 record 1,400,000 cattle and 2,000,000 sheep, goats and swine. The total annual meat production ranges from 15 to 20 thousand tons. An additional 15,000 tons of meat are obtained from elephants (6,000 slaughtered per year), antelope, buffaloes, small mammals, birds, etc.

Although it is hardly possible to specify the exact quantity of fish caught in the Congo, the annual minimum may be estimated at 30,000 tons, the province of Elisabethville ranking first with 12,000 tons.

These different sources of supplies together amount very approximately to 65,000 tons of meat a year, which represents 18.5 per cent. of the animal protein requirements.

The problem, therefore, is urgent, and it is highly important that a solution be found. Efforts must be sustained if this deficiency, so very detrimental to the future of the native races, is gradually to be remedied. Although over 8,000 tons of dried or smoked fish are imported, increasing these imports will not solve the problem. The solution is to be found in the country itself. It is not to be thought, however, that a heavy fish consumption is the sole means of meeting this protein deficiency. If fish production should be increased, and consequently fish consumption, it is essential for large and small cattle breeding to be improved at the same time. Tangible results, however, are likely to be obtained more rapidly in pisciculture than in livestock breeding.

Important research work is being carried out on fish in the Congo, and a favourable solution of the problem can be foreseen.

The efforts of the Government are concentrated in the piscicultural group of Katanga, where the first fish-breeding experiment station has been established. This is only a beginning ; each natural fishing region will be provided with a research centre with the assistance of the " Institut National pour l'Etude Agronomique du Congo belge " (INEAC), which has already prepared experiment pools in Kivu (Mulungu), Yangambi, Mayumbe (Kondo) and the Lower Congo (Mvuazi). Systematic surveys of the rivers will be undertaken in order to ascertain the fish resources. Private initiative is not in any way inferior to the official organization and many associations and private individuals will contribute towards developing this undertaking for increasing native food supplies.

Since he was in charge of the first group of experts sent to the Congo, the Chief of the Hydrobiological Division in Belgium will be well equipped to train, on his return to Belgium, young specialists who will be able to continue his work, which is so very necessary, in the colony. It would also be desirable for Belgium eventually to have a Hydrobiological Institute where problems regarding both the home country and the colony could be examined.

Whaling in Norway

It is reported that nine Norwegian factory ships will operate during the coming whaling season, which will begin December 1947. This fleet will include two new ships the ' Kosmos II ' and the ' Thorshavet ' which were launched at the beginning of the year. Another factory ship is being built in Denmark, but it is not likely that it will be completed in time. It is expected that there will also be three British factory ships, one South African, one Dutch, one Russian and two Japanese. Three whaling stations will be opened. The whaling season is fixed by international agreement as lasting from December 8 to April 7. The quota is the same as last season, namely, not more than 16,000 blue whales. In 1946-47, the number harpooned exceeded 15,000, and the maximum will probably be attained in the coming season, since there will be two new factory ships and more chasers in operation. Last season, the seven Norwegian ships produced 933,800 barrels of oil. This season, it is expected that the nine Norwegian ships will obtain over a million barrels.

VITICULTURE

IIIrd International Congress of the International Wine Office

Istanbul,
October 2-6, 1947.

The International Wine Office has held its first congress since the end of the war. Turkey, which recently joined the I. W. O., had offered its ancient historic capital as the seat of this conference. Nineteen nations accepted the invitation, and 72 delegates, specialists in wine-growing and oenology, took part in the proceedings under the chairmanship of H. E. Sevket Adalan, Revenue and Monopoly Minister.

This Congress was not restricted, as on the two previous occasions (Tunis, 1936 and Rabat, 1939) to questions regarding grapes and their non-alcoholic products, such as grape juice, but also dealt with wine and wine problems. The following were the chief motions carried by the Congress :

Viticulture in the world.

The IIIrd International Grape, Grape Juice and Wine Congress, held in Istanbul from October 2 to 6, 1947, expressing its satisfaction at the admission of the I. W. O. to the F. A .O.,

Recommended :

(*a*) That the International Wine Office continue the study of the problems concerning the cultivation of the vine and the commercialization of its main products : wine, grapes, grape juice and raisins ;

(*b*) That the consumption of these products be advocated from the nutrient and hygienic standpoint and promoted by appropriate measures in all countries ;

(*c*) That investigations be continued on the possibilities of the world market, the trend and importance to be given to wine-growing in each country, care being taken to avoid overproduction;

(*d*) That, in particular, the moderate use of wine be advocated as the most effective means of counteracting the evil of alcoholism ;

(*e*) That, in the United Nations, within the framework of the F. A. O., a wine policy, in the interests of public health, be defined and applied ;

(*f*) That the World Food Board of the F.A.O extend its examination of international agreements on certain agricultural products to viticultural products in general, as the latter also have a food and hygienic value, and form the economic basis of some nations ;

(*g*) That, at the next Vine and Wine Congress, attention be given to the question of the technical training of the wine-grower, cellar, hotel and restaurant staff, in order to promote a more widespread scientific knowledge and thus to contribute towards the improvement of the products of the vine.

Table grapes.

The Congress

recommended :

(*a*) That the selection of established varieties and the study of new types, obtained through genetic research, be fostered in all producing countries ;

(*b*) That close relations be established between the institutions specialized in viticultural genetics, in the different countries, for testing new varieties ;

(*c*) That the setting up of technical committees for cataloguing the best grape varieties and the study of synonyms, be promoted ;

(*d*) That each vine-growing country delimit the zones best suited to the production of high quality grapes, both as regards appearance and taste ;

(*e*) That efforts be made to set up, in specific localities, grape stations and centres for promoting the consumption of grapes as a food ;

(*f*) That crop reports on table grapes in every country be sent regularly and in due time to the International Wine Office, in order that the said Office, in agreement with the F. A. O., may facilitate marketing of the product and the supplying of countries which are importers of table grapes ;

(*g*) That the governments of wine-growing countries be invited to promulgate, as soon as possible, laws, decrees and ordinances relative to the regulation of the maturity standard of the grape and the establishment of these standards according to region and variety ;

(*h*) That, under the aegis of the International Wine Office, an international committee be formed which will draft an international agreement for the control of table grape maturity.

Processes for the full utilization of grapes and grape juice.

The Congress :

recommended :

(*a*) That the Governments represented at the Congress foster, by every possible means, the pre-

paration and preservation, the transport and distribution of grape juice. An incentive could be given in the countries where the crop is officially divided according to the different uses of the grape, by means of allowances to private individuals ; by subsidies granted by State Departments to future enterprises ; by regulations protecting the new industry against adulteration, fraud and unfair competition.

As regards the technique of this industry, the Congress advocated employing physical processes : heat, low temperatures, long and short waves, sterilizing, filtration, centrifugation, clarification (which do not introduce further chemical substances), preservation in inert gases, etc. ;

(*b*) That technical research and investigations be undertaken in order to ascertain the grape varieties best suited for the preparation of grape juice, which should have different characteristics, origin, taste and aroma from those of wine or table grapes ;

(*c*) That the use of chemical preservatives : SO_2, benzoate, mono-bromo-acetic acid, isothiocyanate, etc., temporarily permitted in set minimum doses, in accordance with the resolutions of the preceding congresses, be replaced, as soon as possible, by the mechanical or physical processes at present available to industry ;

(*d*) That the establishment of grape stations and exhibitions advertising grape juice be promoted in wine-growing countries ;

(*e*) That investigations be continued on the presence of vitamins in grape juice, and also on the maintaining of these vitmains in the grape juice during processing and preserving operations;

(*f*) That the International Wine Office continue the examination of the question of the desulphitation of musts at the next international congress ;

(*g*) That, in fruit juice preparations, grape or apple juice be always used as the basis.

WINE GRAPES.

The Congress

Desirous of contributing towards social progress by increasing the consumption of good wine ;

Proclaiming its protection of the general interests of the vine-growers of all countries, where the quality of the wine, which has to compete with other beverages, has to be maintained at a high level ;

Considering the variety of vine one of the essential factors governing the quality of the wine ;

Noting the possibility of substituting good wine varieties by more productive or more hardy varieties producing an inferior wine ;

Considering this substitution as a factor of decadence in world viticultural production, incompatible with the advance of civilization and the desired improvement in the standard of living of all ;

Requested the Governments of the member countries to examine, define and take all measures tending to maintain and improve the quality of wines, particularly by retaining and extending the cultivation of good vine varieties :

(1) By ensuring adequate returns to the vine-grower cultivating these varieties,

(2) By propaganda, by regulations governing the choice of variety, both for seedlings and when setting out the vineyard ;

Recommended including in the agenda of the XXVIIth session of the International Wine Office to be held in 1948, the following item :

" Measures taken in the different countries with a view to improving the quality of wines by increasing the cultivation of good wine varieties ".

On the other hand,

Considering that knowing the vine varieties is an essential factor in drafting viticultural legislation and policies, as well as the main condition for prosperous vine-growing ;

Recognizing the necessity for undertaking ampelographic studies with the requisite means to obtain successful results ;

Deeming the coordination of these studies on a world level and within the framework of the International Wine Office, essential ;

Urged the governments of the member countries to :

(1) Set up and maintain regional and national ampelographic collections ;

(2) Draft a catalogue of the cultivated vine varieties ;

(3) Promote the international exchange of material and personnel ;

(4) Recruit and encourage a suitable number of specialists provided with adequate working equipment ;

And recommended including in the agenda to be discussed at the International Congress in Athens, the following item :

" Establishment of an international ampelographic register : ways and means ".

OENOLOGY IN THE WORLD.

The Congress

recommended :

(*a*) That vine and wine-growing instruction and experimentation, as well as cooperative organization, be expanded ;

(*b*) That musts be preserved throughout the year by appropriate means in each region, so as to prepare specific types of wine ;

(*c*) That, by means of preserving the musts, the output of the different grape products — grape juice, concentrates, pure glucose, yeast, etc. — be directed according to the market demand;

(*d*) That the legislation in each country concerning clarification be standardized ;

(*e*) That further study be made of the traditional wine-making processes from which interesting applications may be drawn for improving the quality of ordinary wines ;

(*f*) That all countries continue the study of oenobiology, which will pave the way to progress ;

(*g*) That greater detail be followed in the chemical analysis of wines ;

(*h*) That a wider use of the standards of appraising and tasting wines, in order to valorize good quality products, be advocated ;

(*i*) That still greater attention be given to all types of vitamins in musts and wines, by seeking the natural sources, as well as the way in which these products are preserved or destroyed in the wines ;

(*j*) That the next International Congress examine the question of standardizing the methods of analysis for estimating the dry extract, sucrose, phosphates and sulphates, organic acids, glycerin, tannin, ash and sulphuric acid.

REVISION OF THE INTERNATIONAL PHYLLOXERA CONVENTION.

The Congress
recommended :

That the Committee of the International Wine Office examine the possible revision of the International Phylloxera Convention of Bern at its next meeting.

PLANT DISEASES AND INSECT PESTS

Insect pest control in Italy

A five-year program for the control of anopheles and other insects injurious to man and animals was started for the first time in Italy on March, 5, 1946. This program was drafted at the end of the previous January by the Director General of the Health Office, Dr. Solmena, and by Prof. A. Missiroli of the Upper Institute of Health. UNRRA assisted by supplying DDT, kerosene and cars, and also lent a technician. ENDSI, (*Ente Nazionale Distribuzione Soccorsi Italia*), the Health Office, the Health Institute and the Latina Anti-malaria Board authorized the collaboration of several experts and disinfection operators. The preliminary results have been most satisfactory. All the insects, mosquitos, flies, fleas and bugs disappeared from the houses, and the inhabitants of the rural zones treated lived a new life. Nevertheless, despite renewed applications of DDT in the spring of 1947, a variety of domestic fly proved resistant to the action of this insecticide.

This resistance is due to the different structure of the epicuticle. Technicians gave it the name of *Musca domestica* var. Tiberina Sacca. According to the observations effected on the increase in mortality rate in summer, flies transmit pathogenic germs and are much more injurious to human life than mosquitos, as the cases of infection and the number of deaths due to them are much greater than those from malaria. Up to three years ago, in Italy, efforts were only directed against this latter disease, but today, control measures cover all insect pests of the rural population.

Chestnut canker

The Station of Plant Pathology in Rome under Prof. Biraghi and the Forestry Station in Florence under Prof. Pavari, have been instructed by the Government to endeavour to obtain chestnut varieties resistant to bark canker. This disease is caused by a fungus *Endothia parasitica* discovered 40 years ago in America, but reported in Italy for the first time in 1938. This disease is much more formidable than ink disease, as once a chestnut grove is attacked, none of the trees or shoots can be saved. Italy has 800,000 hectares planted to chestnut trees.

RURAL WELFARE

The farm worker's wage in Portugal

The agricultural workers' situation is undoubtedly highly complex and difficult to improve by the economic-social measures which give immediate results in industrial and commercial fields. In Portugal the farm evades standardization, making comprehensive action for the benefit of the farm worker extremely arduous.

The splitting up of the land, sometimes carried to an exaggerated extent, gives rise to a special type of working farmer, a type very common in Portugal, and to whom general, rapid and facile measures cannot be applied.

Moreover, the small farm is the rule for the great majority of the active rural population and also constitues an obstacle to communal methods. This state of economic conditions, a decisive factor, hinders the solution of a social problem which continues to receive the attention of the Government, namely, the station of the farm labourer. There is no question, however, but that his position has improved appreciably. Recent statistics show that, in the Sangalhos district the daily wages of agricultural workers vary between 35 and 50 escudos with a weekly wine allowance of 2 litres. In Ribatejo, not long ago, farm workers were given 75 escudos.

In 1930, the wages of the farm worker stood at about a third of the present figure. Thus, in the Castel Branco district, the average wage at that time, was approximately 6 escudos. In 1946, the " Bulletin of the National Institute of Statistics " recorded 18 escudos. (In 1930, the dollar was worth 22 escudos in Portugal, while in 1946, the rate of exchange was 24 escudos).

The Castel Branco district, however, is not a special case. The Bulletin in question gives, for 1946, an average of 18.5 escudos for the Aveiro district with 22 escudos for the current year ; 17.5 escudos for the Braganze district ; 18 for Coimbra and Guarda, 19.5 escudos for the current year ; 22.5 escudos for the Lisbon area, 28 in 1947 ; 18.5 escudos for the Setubal area with 24 for this year.

The pay-rates for women, however, for the same work (sowing, working in the vines, harvesting, reaping, etc.) are one third lower than those for men.

Besides this increase, the position of the agricultural workers has benefited by other improvements which cannot be ignored - medical assistance and medicines through the intermediary of the People's Clubs ; work guaranteed by means of collective agreements with the farm owners of the region ; retiring pensions calculated at two thirds of the wage, in the case of disability or beginning at a specific age, sick-pay and family allowances.

In 1911, 55 per cent. of the total active population of the country were engaged in farm work. In 1940, the percentage fell to 27.

Farming, however, increased, warranting improved technical equipment and more rational and up-to-date methods of cultivation. A point to be noted, the area of cultivable land also augmented. From 1920 to 1934, the arable area increased by 100,000 hectares ; vineyards by 5,000 ; olive-groves by 3,000 ; orchards by 16,000. There was also an extension of all crop and forest land.

The inference is clear : (1) The number of farm workers diminished to the advantage of industry which, in turn, made great strides; (2) fewer workers being available for farms increased in size and output, it became necessary to increase wages. This conclusion is even more evident when it is seen that 27 per cent. of the working farm population is made up mainly of employer-owners, employer-métayers, employer-farmers, owners, métayers and independent farmers, Only 537,000 men work for third parties. The methods aiming at giving the farm worker a social and economic position enabling him to take fuller advantage of present day benefits, are certainly slow, but there is no doubt that they are effective. The Government is endeavouring to improve conditions by the complete utilization of the economic resources of the country : industrialization, electrification, rational and up to date farming, increase in arable area, the development of wasteland, etc., and lastly a more effective distribution and output of work.

Agricultural machinery plants in Russia

In compliance with a decision taken recently, the USSR Board of Education has organized a network of institutes in Soviet territory for the technical improvement of workers specialized in the operating of farm tractors, and for the training of the technicians required in the agricultural machinery industry. On the other hand, the four existing plants (in Stalingrad, Ukraine, Siberia and Rostov on the Don) have been re-organized according to modern standards. The others will be equipped with new sections for the construction of tractors and farm machines, foundry work, metal working and welding. Courses will be given in each of these sections to develop and improve the technical knowledge of the mechanics and mechanical engineers. These improvement courses will also be given in two other similar large organizations in Moscow. It is expected that an improvement course will be initiated for specialists in agricultural machinery and that 18 technical schools will be set up.

Village construction in Russia

The problem of rebuilding houses in the villages and rural centres of the USSR has become acute, particularly through the destruction caused by the war. According to information from Moscow, over 70,000 small villages and agricultural centres were destroyed during the German occupation. The Soviet Government has examined the problem and, according to a plan approved by the State Institute of Architecture, 12 villages are to be set up along the national road which connects Smolensk with Moscow. The funds will be supplied by the State

and by the agricultural rebuilding cooperatives. The rebuilding program varies according to the original size of the village, the ground and the building material obtainable locally. It is expected that each village, besides comfortable and hygienic houses, will have a park, a stadium and a small agricultural experiment station.

Farm labour in France

Strict measures have been taken in France to check the exodus from the country to the towns. One of the most effective means has been the rise in the wage rate of farm workers.

A spontaneous endeavour at adjustment between agriculture and industry has been made. During the summer the farmers are given assistance by town workers who spend their vacations working in the country receiving payment in produce, much preferred to a salary. A town exodus on 'paid leave' has also been observed.

In some regions the farmers form cooperatives for the purchase of harvesters, threshers, tractors and other machinery, thus obtaining an appreciable saving in manpower.

Lastly, in order to remedy the dearth of labour in France, workers are being recruited from other countries.

FAO ACTIVITIES

A Study of the Status of the European National F.A.O. Committees

I – Historical Survey

The idea of FAO National Committees first made its appearance at the First Session of the Conference of FAO at Quebec (16 October - 1 November 1945). When the Conference recommended the setting-up of Regional Offices, the establishment of National Committees was felt to be the first step towards the realization of this aim. They were intended to be a *permanent* link between FAO and the member countries in addition to the normal diplomatic channels and were to cover the routine flow of information between FAO and the respective states. The original conception expressly provided for the necessity of their being *official* bodies, in each country, and including, beside the *governmental officials*, the representatives of *non-governmental organizations* (e.g., Farmers' Associations, Consumers' Organizations, Scientific Technical Bodies, etc). It was, however, felt that the final shaping of the status of each National Committee should depend on the decision of the country concerned.

The Director General of FAO submitted this suggestion to the member countries for consideration in two letters of February and April 1946; he stressed the necessity of obtaining the interest of non-governmental organizations in National Committee activities, in order to secure the maximum public support.

The Second Session of the Conference of FAO at Copenhagen (2-13 September 1946) adopted a recommendation stressing the need for setting up strong representative National Committees in each member country, and the necessity of an effective liaison between FAO and the National Committees. In another recommendation the Conference urged that, within the framework of each National Committee, a special Sub-Committee for Forestry and Forest Products with a permanent secretary should be established. It was, however, recognized that the Committees would necessarily vary from country to country and that *FAO could not* decide for each country how its Committee should be set up.

The establishment of these Committees was of the first importance to the Headquarters of the Organization. Mr. Louwes, Special Adviser to the Director General, spent most of his time, after the Quebec Conference, in Europe, consulting with governments on this question.

On December 3rd, 1946, the First Meeting of the European National Committees, convened on Sir John Boyd Orr's initiative, was opened in London. In discussing the structure, scope and functions of the National Committees, the Meeting agreed that the *Committees should not have any executive power*. On the other hand, the necessity of their being *at least partially* of an *official character* was underlined.

The Meeting agreed that technical data should be given to FAO by the Member-countries in their periodic reports and that these data should be transmitted through the National Committees: FAO should prepare a questionnaire containing the various questions it desired to have answered. A special questionnaire on forestry was called for by a special Recommendation of the Meeting, emphasizing the necessity for each National Committee to set up a special subcommittee on forestry or include in its membership a person competent to deal with the subject.

The Third Meeting of the European National Committees in Rome (July 16-21, 1947) adopted a Recommendation that *a legal status* should be given to the National Committees both within each respective Member-country and within the

framework of FAO, taking into account the fact that the National Committees are predominantly national institutions.

At the Third Session of the Conference of FAO in Geneva (August 25 - September 11, 1947) the Hungarian delegate submitted a proposition for a detailed study of the status and functions of the Committees by a Working Party with a view to presenting a report to the Fourth Session of the Conference of FAO. The Conference sent the Hungarian proposal to the Director General for consideration. It was proposed that a report should be prepared after consultation with the Member Governments for the next Session of the Conference of FAO, in which recommendations should be set forth with a view to make the Committees pursue their work most effectively in relation to both FAO and their Governments.

The present study has been drawn up in fulfilment of the recommendation carried at the Third Meeting of National Committees in Rome. For its compilation statements have been used of thirteen European National Committees (Austria, Belgium, Czechoslovakia, France, Greece, Hungary, Ireland, Luxembourg, Netherlands, Norway, Poland, United Kingdom, Switzerland) which came in answer to Circular Letter No. 9219 of October 5th, 1947 sent by the European Temporary Bureau in Rome.

Until now, of 19 European member countries of FAO, 18 have set up their National Committees.

II – Present Legal Status

Name and location.

Within FAO, the customary name for the Committees under review is National Committees of FAO, supplemented by the name of the respective nationality (e.g., French National Committee of FAO, Irish National FAO Committee). Some documents, however, speak of National Liaison Commissions with FAO.

In some countries the legislation has adopted special names. In Norway, for instance, the official name of the Committee is Statens Ernaeringsraad - National Nutrition Council; in France: Comité Interministériel de l'Agriculture et de l'Alimentation.

All Committees have their seats in the capitals of their countries, without there being special provisions for this in the available documents except in the case of the Belgian and Hungarian Decrees.

Legal basis.

The Committees have an *official* character, as they were instituted within the Member-countries by means of a legal or administrative measure.

In this connection, attention should be drawn to the fact that sometimes the term ' official character ' is applied as meaning the presence of *Government officials* on the Committee. In this analysis, the term ' official character ' is used more broadly. It covers - irrespective of their members – all the bodies which are governed by the public law of a country, and which have some government-delegated functions, as opposed to purely private bodies like commercial and trade associations, societies, cooperatives, etc.

Independent subjectivity inexistent.

The Committees are mostly without any independent legal personality; either being attached to some government offices or having an interdepartmental character.

In Britain the Committee had its origin in a panel of government officials drawn from the departments concerned in FAO activities, which was set up shortly after the Hot Springs Conference and has advised the Government on all matters relating to the creation of FAO and since its creation on all questions affecting FAO in its activities. Following upon the Director-General's invitation to member governments in 1946 to consider the formation of National Committees, it was decided to maintain the interdepartmental panel as the United Kingdom Official Committee and, to secure the cooperation of non-official interests (individual experts and organizations concerned in FAO work) through a new body with purely consultative functions, and consequently a Consultative Committee was set up. Both Committees are under the same Chairman and the expenses are borne by the Ministry of Food.

In France the Committee's expenses are met jointly by the Ministries for Foreign Affairs and Agriculture; likewise in Czechoslowakia. where the Ministries of Agriculture and of Food contribute *ex aequo*.

The Netherlands Committee is a separate entity; as, however, the present Minister of Agriculture, Fisheries and Food has been appointed its Chairman, the Department of Foreign Agriculture in his Ministry is undertaking the secretarial work, and the expenses are paid by the same Ministry, the resulting legal position does not differ much from the types of Committees mentioned above.

The Hungarian National Committee also would seem to have a separate legal status, with regard to other governmental agencies; as, however, the decree does not give it expressly an independent legal status, the personal and material expenses of the Committee having to be defrayed by the budget of the Ministry of Agriculture and the Minister of Agriculture being *ex lege* President of the Committee, it can best be likened to those Committees which are attached to the Ministries of Agriculture.

Until Austria was admitted as a full member of FAO at the Geneva Conference in August-September 1947, there existed only an ' Austrian

Preparatory National Committee' without any regulations or rules of procedure. The creation of a legal status for the Austrian Committee is now under consideration of the Council by Ministers. At present, no further particulars can be given.

Appointment of Chairman.

The official character of the Committees is emphasized by the fact that, in some cases, their Chairmen are Members of Government, as in Hungary, where the Minister of Agriculture is *ex lege* President of the Committee, and the Minister of Public Supplies is Co-President, or in the Netherlands, where the present Minister of Agriculture, Fisheries and Food was appointed President of the Committee in his name. In other Committees the Presidential functions are exercized by top-ranking personalities or officials, as in Austria (Chief of Section, Ministry of Nutrition), Czechoslovakia (Professor of the Agricultural College), Belgium (Ministre Plénipotentiaire), Luxembourg (Conseiller de Gouvernement au Ministère de l'Agriculture), Norway (Surgeon General of Public Health), Switzerland (Député au Conseil des Etats), Britain (Deputy Secretary of the Ministry of Food). In Greece the Director General of the Ministry of Agriculture is *ex lege* Vice-President of the Committee. Some countries invest the appointment of a President with an enhanced significance by adopting for it a special high-level administrative measure. In France, all the members of the Committee are appointed by the Prime Minister acting on suggestions of the Ministers.

In Belgium, a special decree provides for two Vice-Presidents instead of one; both Vice-Presidents are to be high-ranking officials of the Ministries of Food and Agriculture. The President of the Belgian Committee is appointed for three years and can be re-appointed: similarly in Greece with the difference that the office-term is only 2 years: in Hungary, the office-term of the Committee members is 3 years, whereas in Poland, it is one.

Selection of Members.

The number of Committee members and the rules concerning their selection are not generally laid down too rigidly. In Britain the FAO National Official Committee consists of representatives of the Ministries of Food, Agriculture and Fisheries, Health and Supply, the Forestry Commission, Colonial Office, Commonwealth Relations Office, Foreign Office, Treasury, Cabinet Offices, the Board of Trade, the Departments of the Secretary of State for Scotland and the Ministry of Agriculture, Northern Ireland.

In Czechoslovakia the delegates of the National (Constituent) Assembly are members of the Committee. The other official members comprise representatives of the Ministries of Food, Agriculture, Public Hygiene, Foreign Affairs, Foreign Trade, Finance, Economic Board, State Statistics Office. Also in France the Committee is a body composed solely of Civil Servants representing the departments concerned: Ministries of Foreign Affairs, France beyond the Seas, Interior, Public Health, National Education, Finance, Public Works and Transport; National Economy, Agriculture, Food. In Belgium, for instance, the Committee comprises beside the President and a Vice-President who are both appointed by the King, five members who act as Chairmen (in French text, Presidents) of the Commissions of the National Committee. They are appointed by the Minister of Agriculture who also provides for the appointment of the Commission-Members, selecting them from the officials of the ministerial departments concerned, the distributors, scientific institutions and social organizations. In exceptional cases, the Commission may consult other persons. In Norway, on the other hand, among the 27 members of the Committee there are representatives both of the governmental departments concerned and unofficial bodies (e.g., Federation of Trade Unions, Norwegian Forestry, University Institute for Nutrition Research, University Institute for Hygiene, Dental Faculty, Women's Secretariat of the Labour Party, Norwegian Housewives' Association, Cooperative Slaughtering House, Canning Factory Laboratory. Similarly in Czecho slovakia the representatives of non-governmental bodies serve on the Committee (Czech and Slovak Farmers' Unions, Central Council of Cooperatives, Central Women's Council).

In France the law establishes the number of members to be designated by each Minister, for appointment by the Prime Minister. Thus the Minister of Agriculture designates 9 out of 27 members.

Ireland has solely official representatives serving on the Committee. Its Chairman and Secretary are officers of the Department of Agriculture; the Departments of Finance, of Industry and Commerce have each two representatives and other Departments of External Affairs, of Health and of Local Government, each one representative.

In Hungary, too, the Committee consists of official representatives only, the Ministries of Agriculture, Public Supplies, Finance, Foreign Affairs, Commerce and Cooperatives, Public Welfare, and the Hungarian National Bank having representatives on the Committee. Likewise in Austria the Federal Ministries of Nutrition and of Agriculture and Forestry are co-operating in the Committee's affairs. Other Ministries have no special influence upon the Committee's activities.

Cooperation of Non-governmental Bodies.

To enlist the interest and to secure the cooperation and support of the widest circles possible, a provision has been made in some cases for convening special consultative bodies (commissions,

subcommissions, subcommittees, etc.). Thus for instance in Belgium and Greece, the law confers on the President of the Committee the power to suggest to the Minister of Agriculture the establishment of consultative subcommissions to deal with specific questions. These bodies, however, when their task is completed, cease to exist. These elastic provisions allow the Presidents of the Committees full latitude to get the opinion and suggestions of all concerned. The French Decree No. 46340, Art. 5 states expressly that the Commission may hear every person, in particular the representatives of agricoltural producers and consumers.

In Luxembourg, the Countrymen's Centre (La Centrale Paysanne) is represented on the Committee.

In Britain a special FAO National Consultative Committee was formally constituted on 24th July 1947 jointly by the Ministers of Food and of Agriculture and Fisheries " to provide a forum for the interchange of views between departments of His Majesty's Government and official, semi-official and non-official organizations in the United Kingdom on matters in the fields of food, nutrition and agriculture, insofar as they are affected by the Food and Agriculture Organization ".

The Polish National Committee is among those where not only government offices (Ministries of Foreign Affairs, Commerce and Trade, Supply, Forestry; Central Planning Board, Chief Bureau of Statistics, State Institute of Hygiene, Institute for Agricultural Research, Polish Research Society for Animal Breeding) are represented, but also non-governmental bodies (Central Agricultural Chamber, Union of Farmers' Self-help, Central Union of Cooperatives ' Spolem '). The Chairman of the Committee is authorized to call in new members or members *ad hoc*. The Chairman may invite some Committee members to form with him the Executive Committee which can assist him in dealing with particularly urgent matters.

The Swiss Committee comprises both the representatives of Federal and Cantonal Authorities and those of National Organizations of Agriculture, Sylviculture, Commerce, Industry and Consumers.

In Austria, non-governmental associations are so far not represented on the Committee.

Procedure.

In some cases, a provision is made in the legislation for special rules of procedure to be given to the Committees. In Switzerland the Committee has been authorized to work out its own " règlement de travail ". In Hungary the rules of Procedure were laid down in the Decree No. 85600/1946 F.M. of the Hungarian Minister of Agriculture, which authorizes the Conference of the Committee to adopt its own special statutes.

The British, French, Norwegian and Irish Committees have no special rules of procedure.

Subcommissions.

The Committees generally split into Sub-Committees (Commissions) to deal with their specific tasks. In some States the number of these consultative Commissions (Sub-Committees) is laid down by law. As it is sometimes necessary to effect alterations, especially to increase the number of consultative commissions, and as this involves legal difficulties, other countries have left the decision as to the number of the consultative bodies to the Committee itself. France adopted the latter procedure with the modification that the law itself provides for an immediate setting-up of the Statistical Information Commission.

In Britain the Official Committee meets at frequent intervals and serves as the channel for communications between the Government and FAO other than those of a formal nature. The business is transacted in accordance with the normal principles that apply to interdepartmental Committees. A Forestry and Forest Products Sub-Committee consisting of representatives from the Forestry Commission, Board of Trade, Foreign Office, Colonial Office and Commonwealth Relations Office works within the Official Committee.

The British Consultative Committee meets quarterly or more frequently as occasion demands, the Official Committee tackling all day-to-day matters as they arise. On the Consultative Committee are represented the following bodies: School of Agriculture in Cambridge, Department of Medicine at the Edinburgh University, National Farmers' Union in N. Ireland, Scottish Farm Servants' Union, Trade Union Congress, National Union of Agricultural Workers, Transport and General Workers' Union, Imperial Agricultural Bureau, Royal College of Physicians, Agricultural Economics Society, National Farmers' Union in England and Wales, Scottish Land and Property Federation, Agricultural Education Association, National Farmers' Union in Scotland, Society of Medical Officers of Health, British Medical Association and Central Landownors' Association.

In France, the Committee is a nucleus of the commissions (working parties) foreseen in Art. 3 of the Decree. These commissions either meet to deal with specific tasks (preparation of the agenda for FAO Meetings, drawing up of the Annual Report, etc.) or are of a more permanent character *e.g.*, in addition to the Statististical Information Commission there exist the Information Commission, Forestry Commission, etc. The following Organizations are invited to send their representatives to serve on these Commissions: Confédération Générale de l'Agriculture (for the producers), Confédération Générale du Travail, Confédération Française des Travailleurs Chrétiens, Associations Familiales, Associations Féminines, Coopératives de consommation (for the consumers). The Commissions report to the Committee which has to

submit the respective decisions to the Government.

In Norway, sub-committees on Nutrition, Nutritional Investigation, Agriculture, Forestry, Fisheries, Economics, Information, Home Economics, Flour and Bread have been established. Among the members of these sub-committees are representatives of the State Grain Corporation, Agricultural Economic Institute, Agricultural and Forest Workers' Union, Domestic Workers' Union, Farmers' Union, Fishermen's Union, Meat and Pork Distribution Centre, Forest Owners' Association,, Institute of Forestry Research, Norwegian Agricultural College. Thus, in addition to the 27 members of the Committee, some 34 persons more are concerned with the work of the Committee.

The Netherlands Committee has seven sub-committees on : Agricultural Science and Production, Nutrition, Fisheries, Economics and Marketing, Statistics, Forestry, Rural Welfare Division.

The Commissions are authorized to submit suggestions and give their opinions on the questions falling within the scope of their competence.

If necessary, the Commissions can meet and deliberate together.

In Norway, the Committee assembles two or three times a year in plenary session in order to discuss the essential questions and reports of the directing sub-committee and other specialized sub-committees. Between the sessions the work is carried on by the secretariat under the supervision of the directing sub-committee consisting of seven members of the Committee.

The directing sub-committee meets once a month. In Hungary the plenary meeting of all the members of the Committee is called Conference and defined as the " supreme body of the Committee ". It has to be convened at least once a month. The Chairmen of the Technical and Special Commissions and incidentally other technical experts or advisers may take part in the deliberation without the right of vote. The law does not lay down the number of the commissions which can be set up by the Conference, or of Special (Advisory) Commissions which can be set up in case of urgency by the Presidential Board (President, Co-President and the Secretary General), These Commissions, in which technical experts and advisers from the commercial, scientific, social and economic organizations can take part, report through the Secretary General to the Conference.

In Czechoslovakia the members appointed by the Ministers of Agriculture and of Food form together with the Chairman and the Secretary General of the Committee a directorate which is at all times prepared to deal with current and urgent matters, referring its projects to the competent Ministries. The directorate reports to the Committee on its activities. The other officially appointed members form an Advisory Board convened by the President when necessary. The following 10 commissions were set up : Agricultural Economics and Statistics, Plant Production, Animal Production and Veterinary Medicine, Food Distribution, Food Industry, Health Problems of Nutrition, Social Land Problems, Commercial Policy, Forestry and Timber, Temporary Drafting Commission for the Regulations of the Committee.

In Poland, the number of the sub-committees is not fixed. Members of the Committee designated as chairmen of the sub-committees convene the appropriate experts. At present, sub-committees on economic policy and marketing, scientific work, nutrition, forestry are in function.

On the other hand, different proceedings have been adopted in Switzerland. No subcommittees are envisaged, the question at issue being dealt with by specific members or groups of members.

Functions of Committees.

The Committees have *no executive powers ;* their functions are *purely consultative.* The first task of the Committees is compilation and drawing up of communications to be submitted by the respective Member country to FAO. The object is the collection and coordination of data from various governmental departments which have been called on to undertake necessary enquiries or research work, and also incidentally to collect data from non-governmental organizations, and the completion of the reports required either by FAO or any other international Agency covering correlated fields of activity. In some laws, (e.g., Belgian Decree) the distinction is made between the preparation of the Government's Annual Report to be submitted to the Annual Conference of FAO, and answers to FAO Questionnaires for an eventual drafting of recommendations or international agreements. Likewise, the spadework for the Governmental delegations to FAO Conferences, consisting in preparation of the necessary documentation belongs to this part of Committee activities. It is interesting to note in this connection that the Hungarian Committee is directly called to represent Hungary at FAO Conferences and Congresses organized by FAO, and to submit the reports in the name of the Hungarian Government to FAO. Theoretically, it signifies that the Government has given up its right to designate the delegations to various FAO Conferences and Congresses in favour of the Hungarian National Committee ; on the other hand, however, the necessary influence of the Cabinet is safeguarded, the Minister of Agriculture being *ex lege* President of the Committee.

The Committees are called on to ensure liaison with other bodies interested in FAO's work in their country.

Information.

In addition to this work which is essentially of an administrative nature, the Committees have generally informative and educational duties as

well. The Belgian Decree lays upon the Committee tho task of *propaganda* in the interests of the purposes of FAO, as also does the Hungarian Decree. The Greek Decree follows suit without, however, using the word ' propaganda ' ; it is the duty of the Committee to acquaint the Greek people with the tasks and activities of the FAO.

In Poland, it was felt that, after the havoc of the occupation, the population was so intensely bent on the task of reconstruction that the establishment of an Information Service within the Committee would be premature. Information on major problems is therefore conveyed to Press while those interested in FAO activitios - predominantly the members of the subcommittees - are kept regularly informed about FAO's work. Circulars from FAO Headquarters or from the European Temporary Bureau are either submitted to expert subcommittees to be dealt with, or are circulated to the Committee members, if they contain information of a more formal or administrative character.

Technical cooperation.

Further tasks of the Committees are often given : such as taking care of technical commissions sent by FAO into their countries, and of general relations with FAO : sometimes, the European Temporary Bureau of FAO is mentioned.

A general clause in the legislation often covers cases which have not until now been mentioned, generally assigning to the Committees all questions in connection with FAO activities. The Swiss Constitutive instrument of April 22, 1947, when outlining the functions of the Committee, starts with this general clause : ' Le comité national suisse de la FAO a qualité pour s'occuper de tout ce qui fait l'objet de l'activité de la FAO ".

Personnel.

It has been generally felt that the Comittees must have sufficient personnel of their own to ensure their smooth working.

The persons on the staffs of the Committees are usually officials of other govenmental offices and form the secretariat of the Committee. So, for instance, under the Belgian Decree, the Ministry of Agriculture is to provide for the secretariat ; a special decree specifies the number of the necessary personnel (1 conseiller-adjoint, 4 secrétaires d'Administration, 5 rédacteurs, 4 sténo-dactylos). The Secretary of the Committee has the rank of a ' Conseiller ' and his position involves still further tasks ; the secretariat is administratively attached to the General Direction of Economic Services of the Ministry of Agriculture. The same holds in Greece. In France, the Secretariat of the Committee is provided by the ' Secrétariat Général du Gouvernement ' and is headed by a secretary appointed by the Prime Minister on the proposal of the Minister of Agriculture. In Hungary, the Secretary-General of the Committee is appointed by the President of the Committee, in agreement with the Co-President, and is selected from the officials of the Ministry of Agriculture. He heads the ' Office of the Committee ', whose personnel is appointed by the President of the Committee from the officials of the Ministry of Agriculture or other Ministries.

In Luxembourg, the secretarial work is effected by the Ministry of Agriculture. This is also the case in France, although otherwise the Committee is administratively attached to the Ministry of Foreign Affairs. In Poland, the Secretary General is appointed by the Chairman of the Committee ; in his turn, and in agreement with the Chairman, he appoints the staff of his office.

FAO and statistics

This note is a brief summary of the statistical work of FAO. Information has been taken from an article published in the October number of the ' Revue du Ministère de l'Agriculture ' (France), a review which merits the highest praise. In authorizing this publication, the French Ministry of Agriculture has rendered a signal service not only to France, but also to the research workers and technical and administrative organizations of other countries. This review comes out once a month and each number is composed of three parts : (*a*) Studies and monographs, (*b*) Economics and statistics, (*c*) Law and sociology.

The article in question was written by Mr. J. Chombart de Lauwe, Chief of the Statistics Bureau of the French Ministry of Agriculture. On his return from the last meeting of the FAO Permanent Advisory Statistics Board, which met in Washington in August 1947, and which he had assisted from the onset of its work, he informed the readers of the journal of the progress made by FAO in the field of statistics, and of the program drawn up for future work.

The information given in this report covers three categories :

I. Collecting of statistical data :

1. *World agriculture census in* 1950. FAO is actively engaged in organizing this huge undertaking which will consist in collecting data of basic importance not only for ascertaining the agricultural situation at that time, but also for establishing the basis for all future progress in agriculture statistics.

2. *Periodical statistical information.* FAO intends to assemble the requisite data by sending periodically, in agreement with the different governments, questionnaires concerning all departments.

3. *Food budgets.* The drafting of these budgets in the different countries will be facilitated and made more effective by means of a special

technical manual which will be published by FAO, and the use of this system will become more general.

4. *Production indices.* Indices will be set for the production and consumption of and trade in agricultural products.

5. *Food and agriculture prices statistics.* These statistical data will be assembled and turned to full account.

II. — PUBLICATIONS.

The FAO Economics and Statistics Division has already completed several publications : the *International Yearbook of Agricultural Statistics*, 1941-42 *to* 1945-46, has come out, the *Yearbook of Agricultural Statistics for* 1946 is in the press, and monographs on the chief agricultural products were presented at the Geneva Conference, though not published.

The publication (quarterly) of the *Economic situation of food and agriculture*, and of a *Monthly Bulletin of Statistics* in liaison with other international organizations, is expected shortly.

III. ASSISTANCE TO GOVERNMENTS FOR THE IMPROVEMENT OF THEIR STATISTICS SERVICES :

It is evident that all the material indicated in the two preceding paragraphs is closely linked with the extent of statistics in the different countries. FAO intends to give every possible assistance, more especially by the following means :

(1) repeated contacts between the F A O regional statisticians and the officers of the departments concerned ;

(2) publication of monographs on statistical methods and on the organization of statistical services in the more advanced countries ;

(3) drafting of world-wide rules regarding questions connected with agricultural statistics ;

(4) drafting of instructional programs for statistical experts and for the utilization of the training systems in force in the different countries ;

(5) centralization of all documentation utilized by the member countries for statistical work and circulation of this documentation.

In conclusion, Mr Chombart de Lauwe clearly shows that FAO has succeeded in drawing up for the common welfare a working program which closely links the two aspects of a world statistical activity, so urgently required, that is to say, the fullest possible utilization of all statistical data already available, and the implementing of all efforts to obtain these statistical data by continually improved methods and on an increasingly wider scale. This is how this vast coordination of scientific knowledge, technical work and social aims can be achieved.

World Food Situation

Mr. DENNIS A. FITZGERALD, Secretary-General of the International Emergency Food Council, submitted a report to the fifth quarterly meetingof the Council in Washington on October 27th, 1947.

He gave these four warnings in his report to the delegates.

(1) Grain exports will have to be stepped up 20 per cent over last year if rations in imported countries are to be maintained at last year's levels.

(2) European livestock will have to be drastically reduced because of the grave shortage in feed suplies.

(3) The trend towards bilateral agreements on food purchases will have to be halted if fair and equitable world-wide allocation of scarce commodties is not to be sabotaged.

(4) The grain shortage will continue to harass the world " for years to come ".

This year's total world supplies of grain are not below last year's : but food production has declined in areas which in any event are heavily dependent on imports while it has increased in areas where much of the increase is not readily available for export. As, at the same time, there is a marked decline of animal feed in Europe, a considerable reduction in European livestock numbers must result this year.

" With more normal weather, 1948-49 will be appreciably less difficult than 1947-48, and still further progress may be made in achieving a more reasonable balance between cereals supplies and requirements in the years that follow.

On the other hand, there seems little prospect that the world can work its way completely out of its food difficulties, particularly its cereals difficulties, for years to come ".

The chairman of the World Food Council (Council of FAO), Viscount Bruce, stated that it seemed clear that the world food shortage woould continue for at least four or five years. He called for still further sacrifices in home consumption by wheat-producing countries.

Proposals of the World Food Council

The Council of FAO (World Food Council) recommended that substantial interim relief should be afforded to France, Austria and Italy. France would receive interim aid of 110 million dollars worth of cereals and Austria 20 million dollars worth of food. The question of financing this scheme had also been placed under consideration, and a report on the subject was submitted to the first plenary session of the World Food Council, embodying a request that the international monetary

fund should cooperate with FAO in order to alleviate financial exchange difficulties which aggravate food and nutrition problems in many countries and thus reduce their ability to finance essential imports.

The report, which was adopted by the Council, called on all food producing countries to make maximum sowings of cereals, including rice, during 1948.

After estimating the gap between world fertilizer nitrogen needs and supply in 1947-8, the report devoted considerable attention to means of increasing the supply. The conclusion was reached that the limiting factor in European fertilizer production was not lack of coal so much as lack of equipment resulting primarily from war damage.

The report urged that greater attention should be paid to the output of organic nitrogen and asked fertilizer nitrogen producing countries to reconsider the possibility of increasing output for export and diverting some tonnage now used for industrial purposes.

* * *

Mr. ARTHUR WAUTERS, Minister Plenipotentiary and Chairman of the Belgian National Committee of FAO, whom the Belgian Government had placed at the disposal of FAO in order to organize the Information Service of the European Temporary Bureau of this Organization, considering that his mission has been successfully completed and that the European Bulletin is amply justified, has now returned to Brussels. Being greatly interested in the Information Service of the FAO European Bureau, Mr. A. WAUTERS has promised to remain in close contact with this Service.

Calendar of meetings and conferences

November 26-27, 1947 *Paris.* Meeting of the Technical Centres on Agricultural Machinery

December 8-10, *Rome.* Meeting of Experts on the Duties of the National Committees

December 11-13, *Brussels.* Conference of Experts on Colonial Problems

December 14-16, *London.* Meeting of Colonial Experts.

December 16, *Rome.* Preliminary Meeting of Experts on the Unification of the Methods of milk and Butterfat Recording

February 17, 1948 *Rome.* Meeting of the FAO European National Committees

February 26, *Rome.* Final Meeting of the Permanent Committee of the International Institute of Agriculture.

PARIS

The French National FAO Committee and the Technical Centre for Agricultural Machinery in Paris organized a meeting of the technical centres on agricultural machinery, from the 26th to the 27th of November 1947 in Paris. Under the presidency of Professor André Mayer, (France) the delegates of the following countries took part in the discussion: Belgium, Finland, France, Italy Luxembourg, Portugal, Great Britain, Switzerland, Czechoslovakia and Yugoslavia.

The experts decided to realize as quickly as possible the proposals made in Rome in April 1947, sanctioned by the meeting of the FAO National Committees (in July 1947) concerning the foundation of technical centres in countries where they do not yet exist, and the constitution of a central European body of liaison with the European FAO Bureau. Furthermore, they decided to study the following questions: terminology and experiment methods. These items will have to be discussed at a further meeting which will be convened in Paris about May 1948.

ROME

O A meeting of experts on the Duties of the National European Committees was held in Rome between the 8th and 10th of December at the seat of the Temporary European Office of the FAO. The representatives of Belgium, France, Great Britain, Hungary, Italy, Norway and the Netherlands have prepared a provisional report which will serve as a basis for further discussion when the meeting of the National Committees takes place in Rome in February 1948.

O On the 16th of December 1947, a preliminary meeting of experts for the standardization of the methods of milk and butterfat recording will be held in Rome. The Temporary European Office of the FAO has made an enquiry on the methods of milk and butterfat recording in present use in Europe with a view to their unification. The third meeting of the National FAO Committees has decided that the replies should be submitted to a restricted Commission, composed of Professor A. M. LEROY (France) Mr. J. M. RIJSSENBEEK (Netherlands) and Dr. W. ENGELER (Switzerland). The Commission will examine the replies and establish a working plan to put into action with a view to standardizing these methods.

O The Meeting of the FAO European National Committees will be held in Rome, 17 February 1948; the Director General of the Organization will be present.

O On the 26th of February 1948, the permanent Committee of the International Institute of Agriculture (I. I. A.) will hold its final meeting.

BRUSSELS

A conference of experts on colonial problems of France, Great Britain, Belgium, Portugal and the Union of South Africa was convened in Brussels from the 11th to the 13th of December to study problems concerning forests, phytosanitary control and the legislation relating to it as well

as the question of soil erosion in the African colonies. This conference was organized by the Belgian Colonial Ministry and by the consultative colonial Sub-Committee to the FAO National Committee.

LONDON

Following the recommendation made by the Third Session of the General Assembly of FAO in Geneva, a meeting of colonial experts will be held in London, from the 14th to the 16th of December 1947, to study the question of colonial forestry statistics.

NATIONAL AGRICULTURAL PUBLICATIONS

SWITZERLAND

A LIST OF SWISS PERIODICALS RELATING TO FARMING AND AGRICULTURAL INDUSTRIES,

Landwirtschaftliches Jahrbuch der Schweiz (unregelmässig). Imprimerie fédérative S. A. Laupenstrasse 7, Berne. (Switzerland Fr. 6 ; Abroad Fr. 30).

**The Swiss Agricultural Year-book (published irregularly).

Campagnes et coteaux (bimensuel). Société d'imprimerie de Cernier. (Switzerland Fr. 3 ; Abroad Fr. 6).

Field and Vineyard (fortnightly).

Bulletin de la Fédération Suisse d'élevage de la race tachetée rouge (six fois par année). Published by : Bureau de la Fédération, Laupenstrasse 18, Berne.

Bulletin of the Swiss Federation Breeding Society for red spotted cattle (six issues a year).

Bulletin mensuel de la Société Suisse d'économie alpestre (mensuel). Published by : Emmenthalerblatt A. G. Langnau. (Fr. 7).

Monthly Bulletin of the Swiss Society for mountain economics (monthly).

Der praktische Forstwirt (monthly. Published by: Sauerland & Cie., Aarau. (Fr. 6).

*The Practical Forester (monthly).

Der Gärtnermeister - Le Maitre-Jardinier (hebdomadaire). Published by : Der Gärtnermeister, Forchstrasse 287, Zurich. (Fr. 8).

**The Master Gardener (weekly).

Der Geflügelhof (*Schweizerische Illustrierte Zeitschrift für Geflügelzucht, Eierwirtschaft und Nebenzweige*) (hebdomadaire). Published by : Geflügelhofverlag Zollikofen bei Bern (Switzerland Fr. 9 ; Abroad postage extra).

*The Poultry-yard. An illustrated Swiss review on poultry raising, egg production and allied subjects. (weekly).

Der Genossenschafter. Organ des Verbandes ostschweizérischer landwirtschaftlicher Genossenschaften (hebdomadaire). Published by : Verband schweiz. landwirtschaftlicher Genossenschaften, Winterthur. (Switzerland Fr. 7 ; Abroad postage extra).

*The Co-operative Worker. A publication of the co-operative agricultural union of Eastern Switzerland. (weekly).

Holz, Schweizerische Holzzeitung (hebdomadaire). Published by : Baublatt A. G. Rüschlikon (Zürich). (Fr. 16).

*Wood, the Swiss Wood Review. (weekly).

L'industrie Laitière Suisse (hebdomadaire). Published by : Union centrale des producteurs suisses de lait, Berne, Laupenstrasse, 7. (Switzerland Fr. 6 ; Abroad Fr. 12).

The Swiss Dairy Cow Industry (weekly).

Journal d'Agriculture Suisse. Organe officiel de la Chambre Genevoise d'Agriculture (hebdomadaire). Published by : Journal d'Agriculture Suisse, 4 r. de Chantepoulet, Genève. (Switzerland Fr. 7,50 ; Abroad Fr. 12).

The Swiss Agricultural Journal. Official publication of the Geneva Chamber of Agriculture (weekly).

Journal Suisse des Boulangers- Pâtissiers (hebdomadaire). Published by : Büchler & Cie., Berne. (Fr. 14).

The Bakers and Pastry-cooks' Journal (weekly).

Journal Suisse des Bouchers-Charcutiers (hebdomadaire). Published by : Verband schweiz. Metzkermeister, Zürich, Steinwiesstrasse, 59. (Switzerland Fr. 15 ; Abroad Fr. 30).

The Butchers' Journal (including Pork-butchers) (weekly).

Mitteilungen des schweizerischen Braunviehzuchtverbandes (six fois par an). Published by : Verband schweiz. Braunviehzuchtgenossenschaften, Chamerstrasse-Verbandshaus, Zug.

**Review of the Breeding Societies for Swiss brown cattle (six issues a year).

Der Ostschweizerische Landwirt (hebdomadaire). Published by : Huber & Cie. A. G., Frauenfeld (Fr. 6.50).

*The Eastern Switzerland Farmer (weekly).

Le Paysan Suisse, Organe officiel de l'Union Suisse des Paysans (mensuel). Published by : Union Suisse des Paysans, Brougg (Argau). (Abroad Fr. 3).

The Swiss Peasant, Official publication of the Union of Swiss peasants, monthly.

Rapport sur le marché international de laits et des produits laitiers (trimestriel). Published by: Office de reinseignements sur les prix de l'Union suisse des paysans, Brougg (Argau).

**Report on the international marketing of milk and dairy products (quarterly).

**Published in both French and German.

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* Published only in German. — ** Published in German and in French.

LEGISLATIVE NEWS

SUMMARY : I. NUTRITION : (*a*) Agricultural products in general (Finland, Greece, United Kingdom) ; (*b*) Cereals, flour and bread (Denmark, France, Greece, Luxembourg) ; (*c*) Meat (France, Switzerland, United Kingdom) ; (*d*) Milk, cheese and eggs (Belgium, Denmark, Greece, Italy, Luxembourg) ; (*e*) Potatoes (Denmark) ; (*f*) Sugar (Belgium) ; (*g*) Fats and oils (Finland, Italy, United Kingdom) ; (*h*) Fruits (Switzerland). — II. AGRICULTURE : (*a*) The organization of agriculture and of the farmers (Portugal, Czechoslovakia) ; (*b*) Land reclamation (United Kingdom, Switzerland) ; (*c*) Regulations concerning the different crops (France, Italy, United Kingdom) ; (*d*) Measures for the protection of plants (Netherlands, United Kingdom) ; (*e*) Animal husbandry and the protection of livestock (Greece, United Kingdom) ; (*f*) Animal diseases (France) ; (*g*) Seeds, fertilizers and feeding stuffs (Belgium, France, Greece, Norway) ; (*h*) Agricultural contracts (France, Italy) ; (*i*) Measures concerned with rulal properties (Sweden). — III. RURAL ECONOMY AND AGRICULTURAL MARKETS : (*a*) Plans of agricultural reconstruction (Poland) ; (*b*) Control of prices (Belgium, Denmark, Finland, France, Greece, Switzerland); (*c*) The control of home and foreign trade (Denmark, France, Greece, Norway, Switzerland). — IV. STATISTICS (Sweden). — V. FORESTRY (Finland, Norway, Sweden). — VI. RURAL WELFARE : (*a*) Agricultural cooperation (France, Italy) ; (*b*) Agricultural labour (Italy, Switzerland).

I. - NUTRITION

(*a*) Agricultural products in general.

FINLAND

In view of ensuring a more effective control over the food supply, the Finnish Government, in its resolution No. 754 of October 10, 1947 (*F. F. No.* 753-754, *Oct.* 15, 1947, *p.* 1178), made certain modifications in the list of agricultural products subject to compulsory delivery (see resolution of June 5, 1947, in the *European Bulletin of the F.A.O. No.* 2, *October-November*, 1947, *p.* 165).

To the lists of products contained in the clauses(2) and (3) of the resolution of June 5, have been added: linseeds and the seeds of turnips, white mustard, poppies and hemp.

The resolution of October 10 also provides that the producers may acquit themselves of their liabilities under the compulsory delivery system by the delivery of hay or of sugar, sugarbeet, chicory, seeds of clover, fodder pulses, vetches etc., of cattle or horse hides or of wool.

The quantities of products subject to compulsory delivery are fixed in proportion to the cultivated area of each farm.

The cultivated area, unless ascertained by a special survey for the purpose of control, is established on the basis of the last communal land survey. It is the task of the Minister of Supplies, acting through a special commission of the Ministry, to classify the farms, naturally taking into consideration their several yields, and then to establish the " delivery units " for the different products, always provided that the products concerned are up to the standards of quality required.

Special provisions refer to the terms within which the deliveries must be effected, as well as to the measures to be taken in case of the failure of the producers to comply with the regulations.

GREECE

The ordinance No. 41/41399 of April 4, 1947 (*E. K. No.* 84, *June* 26, 1947, *part II*, *p.* 446) forbids the preparation by the producers of icecreams, the dairies, the confectioneries and the restaurants of more than two varieties of icecream on the same day.

The ordinance No. 42/25493 of April 4, 1947 (*Ibidem*) introduces an exception to the existing regulations on this subject by exempting certain categories of public catering establishments from the obligation to which they were subject of preparing for the customers one single course a day. The categories enjoying this exemption are : (*a*) the catering establishments attached to to meeting-

places in the villages ; (*b*) the restaurants of the 3nd and 4rd categories, the public houses serving meals to their customers, the inns etc. ; (*c*) the establishments open to the public only in the evening. The proprietors of the catering establishments belonging to the above categories are also bound to serve, to those of their customers who ask for it, wine for immediate consumption.

UNITED KINGDOM

An Amendment, dated January 4, 1947 (*S. R. & O.*, 1947, *No.* 26), has modified The Food Rationing (General Provisions) Order, 1946 (*S. R. & O.*, 1946, *No.* 1099).

Its purpose is to remove from the scope of the Food Rationing Orders the supply, otherwise than as human food, of rationed food which is also a rationed feeding stuff for the purpose of the Feeding Stuffs (Rationing) Order, 1943 ; and to provide that the supply of any other rationed food, whether or not as human food, is subject to the provisions of the Food Rationing Orders, 1946.

The Edible Gelatine (Control) Order, 1947, dated January 30, 1947 (*S. R. & O.*, 1947, *No.* 161) creates by definition a product known as " edible gelatine ". This means the clean, wholesome protein which is obtained by extraction from collagenous material and is free from objectionable taste and offensive odour when in a warm five-per-cent acqueous solution. The Order prohibits the use of gelatine other than edible gelatine in the manufacture of any food. The use of edible gelatine in the manufacture of any food, other than specified food, is allowed. The following are specified foods : Baker's prepared materials ; biscuits ; canned soup ; confectionery ; flavouring essences ; invalid foods ; meat products ; table jellies ; wine and spirit finings.

An Amendment, dated May 16, 1947 (*S. R. & O.*, 1947, *No.* 968) provides that edible gelatine may be manufactured by the blending together of two or more gelatines (not necessarily complying with the definition of " edible gelatine ") ; and adds jellied eels to the list of foods in the manufacture of which edible gelatine may be used.

(*b*) Cereals, flour and bread.

DENMARK

The control of the cereal market has been a matter of close attention for the Government in the course of the last few years. The law No. 390 of July 25, 1940 (*L. A. No.* 82, July 26, 1940, see: *Annuaire international de Législation agricole*, 1940, *p.* 7) and the law No. 139 of March 30, 1942 (*L. A., No.* 19, *March*, 31, 1942, see: *Annuaire International de Législation agricole*, 1942, *p.* 11) provided for the compulsory delivery of the whole production of rye and of wheat, with the exception of the quantities needed for sowing.

The compulsory delivery provided for by the law is fixed at 400 kg. for the holdings valued at from 8,001 to 12,000 crowns, and this amount rises gradually by proportional increments, to a maximum of 800 kg. for holdings valued at over 100,000 crowns.

Moreover, the law provided that the holdings valued at under 800 crowns enjoy complete exemption from compulsory delivery.

The new law No. 206 of June 4, 1947, (*L. A., No.* 29, *July* 31, 1947, *p.* 321) provides, moreover, for a total exemption from compulsory deliveries of the holdings whose value does not exceed 8 to 10,000 crowns.

The producers must deliver their cereals threshed and winnowed, without any admixture to them of seeds of other species.

In case of being unable to comply with their obligations in respect of deliveries in full, the producers must notify of this fact, with the necessary evidence, the Communal Commission on Cereals before September 1947. The Ministry of Agriculture and Fisheries is authorised to issue orders and regulations concerning the conservation, the transport and the drying of the cereals, as well as their distribution among the mills etc.

In respect of the control of the bread and flour market, there are to be mentioned two circular orders, namely, that under No. 146 of May 31, 1947 (*L. A. No.* 24, *May* 22, 1947, *p.* 199), and that under No. 158, of April 11, 1947 (*L. A., No.* 26, *June* 25, 1947, *p.* 258). The former provides for the rationing of all kinds of bread, as well as of the different varieties of flour. The communal authorities are charged with the distribution of rationing cards on the basis of registers of population.

The circular order of April 11, 1947, fixes the maxima prices of rye, barley and wheat flour, such prices to apply to the sales of flour to two distinct categories of bakers, namely those of Copenhagen, on the one hand, and those in the provinces, on the other, and to the sale direct to the consumers.

The bakers are forbidden to deliver bread to consumers within 24 hours of its having been baked.

FRANCE

An order dated August 18, 1947 (*J. O., No.* 208 *September* 3, 1947, p. 8786) provides that the declaration, of the quantities harvested and the engagement to effect the prescribed deliveries required from all the producers in virtue of the order of July 14, 1947 (see *European Bulletin of the F.A.O. No.* 2, *p.* 166) must be signed before October 1, 1947. The prefects are authorised to fix for all or part of the communes or for all or part of the producers of their respective departements a time limit earlier than October 1, 1947.

The order of August 28, 1947 (*J. O., No.* 203, *August* 29, 1947, *p.* 8567) fixes, as from September 1, 1947, the bread ration of the producers of bread-making cereals at 10,500 kg. per month.

An order of August 28, 1947 (*J. O., No.* 205, *August* 31, 1947, *p.* 8662) contains new regulations concerning the opening of the bakers shops, in substitution of those introduced by the order of April 25, 1947, concerning the same subject (see *European Bulletin of the F.A.O., No.* 1, *p.* 72). From the date of publication of the new order, the bakeries, the shops selling bread and the bakeries-confectioneries, must keep closed on three non-consecutive days every week, instead of one day, as before.

An order of the same date (*ibidem, p.* 8663) imposes new restrictions on the production and sale of pastries, repealing the order of April 25, 1947 (see *European Bulletin of the F.A.O., No.* 1, *p.* 72). From August 31, 1947, the production, supply, sale, purchase and consumption in public places of pastries containing flours, starch, cream, semolina, groats, flakes or pulps of any cereals, whether bread-making or not, are forbidden. Equally forbidden is the use of flours made of pulse and of fruits. Remain authorized only the production and sale of creams and pastes made of almonds, of pralins, nougats, cream meringues, meringues, almond pastries, macaroons, croquets etc.

The decree of September 2, 1947 (*J. O., No.* 208, *September* 4, 1947, *p.* 8774) confers special powers upon the prefects in connection with the collection and the utilization of the cereals and of their derivates for the 1947-48 campaign. In their respective *départements*, the prefects are responsible for the collection of the cereals for the 1947-48 campaign and for the organization of the operations aimed at revealing the cases of infringement of the regulations bearing upon the collection, the purchase, the sale, the transport, the delivery and the utilization of cereals and of their derivates.

GREECE

The ordinance No. 41/41399 of April 4, 1947 (*E. K., No.* 102, *July* 19, 1947, *part II, p.* 554) establishes the type of flour to be used in the making of bread for sale on the free market and forbids the production by the flour mills of pure wheat flour. The ordinance provides for bread for the free market to be made of a mixture containing 85 per cent. of wheat and 15 per cent of maize flour. The rate of extraction of the maize flour so used is fixed at 90 per cent.

The ordinance No. 44/49889-1078 of April 25, 1947 (*R. K., No.* 96, *July* 12, 1947, *part II, p.* 512) introduces a modification to clause 1 of the ordinance No. 116/46, providing that the bread rations must be delivered to the consumers on the day of their baking. As an exception to this rule, the ration for Sunday must be distributed on Saturday.

The ordinance No. 49/1947 of May 8, 1947 (*E. K. No.* 58, *May* 12, 1947, *part II, p.* 302) establishes the chemical composition and the conditions with which flour mixtures composed of 70 per cent of American wheat and of 30 per cent. of maize, equally American, should comply.

The ordinance No. 51/77836 of June 17, 1947 (*E. K., No.* 83, *June* 22, 1947, *part II, p.* 438) specifies the way in which all the cereals imported from abroad are to be utilized and distributed among the several flour mills.

The ordinance No. 91023 of June 23, 1947 (*E. K. No.* 116, *August* 23, 1947, *part II, p.* 631) specifies the quality and purity standards required in all the cereals used for public stocks.

The ordinance No. 61/100505 of July 29, 1947, (*E. K., No.* 109, *August* 9, 1947, *part II, p.* 597) specifies the type of flour to be used for the baking of bread for sale on the free market. The bakers and confectioners are forbidden the preparation and baking of cakes, pastries and buns made of flour other than that of the type prescribed by the ordinance.

GRAND DUCHY OF LUXEMBOURG

The order of September 26, 1947 (*M. L., No.* 44, *September* 30, 1947, *p.* 847) provides that the producers of bread-making cereals must deliver their products either to the grain merchants or to the industrial flour mills. They are permitted to retain for their own consumption 175 kg. of grain for each member of the household and for sowing 200 kg. per hectare to be sown. The use of bread-making cereals for feeding livestock is forbidden. The order fixes, moreover, the rate of extraction of the flour and the proportion of admixture of indigenous cereals.

Another order issued on the same day (*M. L., No.* 44, *September* 30, 1947, *p.* 848) provides for the allocation as from October 1, 1947, of a quota of free flour for the production of buns and of pastries.

By an Order in Council of September 30, 1947 (*M. L., No.* 48, *October* 27, 1947, *p.* 912) the use of farinaceous substances for the brewing of beer is made subject to previous authorization by the Minister of Economic Affairs.

(*c*) Meat.

FRANCE

The decree No. 47/1624 of August 13, 1947 (*J. O., No.* 203, *August* 29, 1947, *p.* 8567) imposes restrictions upon the consumption of meats. The display, the bringing to market and the sale of butcher's meat is permitted, from September 1,

1947, only on Friday and Saturday of each week. The sale of sausages and similar products is permitted on Fridays, Saturdays and Sundays.

The law No. 47/1625 of August 29, 1947 (*J. O., No.* 204, *August* 30, 1947, *p.* 8630) aims at assuring the meat supply of the country through the carrying-out of a national programme of freezing of the meat produced within the country. The programmes are to be established every year by the Minister in charge of the food supplies after consultation with the National Meat Council. The meat freezing programme may be supplemented, if necessary, by a programme of frozen meat imports, which must be worked out following the same procedure. The frozen meet, either produced at home or imported, must be stored in special refrigerators which must be placed at the disposal of the specialized trade organizations (butchers' associations, cooperative workers' butcheries, producers' associations etc.), which are made responsible for the purchase of the livestock necessary for the carrying-out of the programme, by means of special agreements concluded by the Minister of Supplies with the said organizations and with the refrigerating establishments. These agreements will determine the various technical details of the operation and the prices at which the meats will be sold by the refrigerating and storage establishments, due account being taken of the costs of production of the various kinds of meat and of the expenses involved in their freezing and their conservation in stock. The purchases of the livestock required for the carrying-out of the agreements will be made at the local fixed price rates, or, if such do not exist, at the prices current in the region concerned. In case it should not be possible to obtain the whole quantity of meat envisaged in the programme of freezing by means of these particular agreements or by any other contracts that may from time to time be concluded to such effect, the Minister in charge of food supply will acquire the necessary livestock by having recourse to the right of pre-emption provided for by the law of October 4, 1946. Moreover, the prefects of the *départements* are authorised, in case of necessity, to order the requisition of refrigeration and storage facilities, so as to ensure the execution of the programme of freezing by the trade organizations concerned or by the Minister in charge of food supply. The indemnity to be paid for the requisitioned accomodation cannot be in excess of its normal rent.

With a view to assuring the supply of fresh meat to the large urban centres during the period from January 1st to June 30, 1948, the Government is authorized to demand of the producers, after consultation with the federation of agriculturists and under certain conditions, engagements by which they undertake to effect deliveries in proportion to their respective production. Such engagements are compulsory, and their signature is due before November 15, 1947, in the case of all the producers who fatten livestock either in the open or in the stable and whose area under grass exceeds 5 hectares, as well as of those whose deliveries of cereals and of dairy products in 1946-47 were insufficient.

Finally, the Minister in charge of the food supply is authorized to take all the necessary decisions in connection with the sale of the frozen meat, whenever such sale is rendered necessary by the insufficiency of the supply of fresh meat or by an unjustified rise in the price of live butcher's stock.

The decree No. 47-1763 of September 9, 1947 (*J. O., No.* 213, *September* 10, 1947, *p.* 9055) contains executive regulations in connection with the application of clause 3 of the law dealt with above. These regulations determine the conditions which must be satisfied by the trade organizations in order to be admitted to participation in the carrying-out of the programme of freezing meat, as well as the procedure to be followed by such organizations in applying for advances for the financing of their operations.

SWITZERLAND

The ordinance No. 7 of September 6, 1947 (*R. L.F., No.* 36, *September* 15, 1947, *p.* 1001) introduces a new system of regulation of the supply of meat. It establishes a system of quotas for the slaughtering of horned cattle and of pigs by butchers engaged in the production of sausages, as well as for the purchase of meat coming from emergency, domestic and private slaughterings. The measures of control are decreed by the Federal War-Time Food Office.

UNITED KINGDOM

The Meat (Argentine Gift Rebate) Order, 1947, dated January 3, 1947 (*S. R. & O.*, 1947, *No.* 167), gives effect to the gift of meat by the Argentine Republic to the people of the United Kingdom. The method adopted is by placing an obligation upon butchers to give a rebate or discount at the rate of 5d. per head to their customers on the first sale of rationed meat in the week commencing 12th January 1947. Since the weekly seaman's ration book (R. B. 6), and the temporary ration card (R. B. 12) issued to a person other than the holder of a child's ration book (R. B. 2), contain two coupons, each of which may be honoured by a different butcher, the rebate or discount in these is at the rate of 2 ½ d. per meat coupon. Butchers will, of course, be reimbursed by means of rebate on their bills for meat purchased by them.

(*d*) **Milk, cheese and eggs.**

BELGIUM

The ministerial order of October 1, 1947 (*M. B.*, *No.* 276, *October* 3, 1947, *p.* 9094) introduced the compulsory registration of the consumers with retail traders of their own choice for the supply of butter.

DENMARK

The regulations of May 5, 1947 (*L. A.*, *No.* 175-186, *May* 10, 1947, *pag.* 266) introduce the standardization of unskimmed milk. Provision is made for the case in which the contents of the milk in fat are in excess of the limit fixed by the regulations of May 5, this provision authorizing the admixture to such milk of a quantity of skimmed milk sufficient to bring it to the normal standard. Such mixed milk is to be known as " standardized skimmed milk ".

The skimmed milk used for the purpose of such standardization must be fresh and must come from the same day's milking.

The control over the standardization of milk is entrusted to the communal commissions of hygiene.

GREECE

The ordinance No. 3/1947 of April 16, 1947 (*E. K.*, *No.* 52, *April* 29, 1947, *part II*, *p.* 266) contains supplementary provisions to the ordinance No. 137 of 1939 concerning the production of soft cheeses and the conditions of retail trade in such cheeses.

The ordinance No. 58/80089 of July 22, 1947 (*E. K.*, *No.* 105, *July* 26, 1947, *p.* 570) forbids the sale by street vendors of yoghourt otherwise than in closed containers, authorizing the sale of such product only by persons managing public catering establishments.

The ordinance No. 59/99186 of July 26, 1947 (*E. K.*, 126, *September* 3, 1947, *part II*, *p.* 690) determines the quantities of the different types of cheese to be sold in retail trade, any transaction concerned with quantities in excess of the limits thus fixed being considered as wholesale dealing.

ITALY

The decree-law No. 1172 of October 29, 1947 (*G. U.*, *No.* 255, *November* 6, 1947, *p.* 3275) introduces new regulations concerning milk and dairy products. The decree contains provisions bearing upon the declaration of production and of the destination of milk, upon the prohibition of skimming, upon milk for direct family consumption, upon the control of butter, upon the prices of dairy products, as well as upon the special commissions dealing with milk and its derivates.

GRAND DUCHY OF LUXEMBOURG

The order of September 26, 1947 (*M. L.*, *No* 44, *September* 30, 1947, *p.* 848) prohibits, as from October 1, 1947, the use of whole milk and of fresh dairy cream in the preparation of bread and of pastries.

(*e*) **Potatoes.**

DENMARK

A circular order of May 31, 1947 (*L. A.*, *No.* 309-332, *September* 5, 1947, *p.* 883) prohibits the use of potatoes for animal feeding, in any form, unless the potatoes concerned had to be scraped through sorting, in accordance with the regulations contained in the circular order of August 19, 1947, established by the General Direction of Prices.

The Danish Government, always with a view to improving the production of potatoes, makes the producers responsible for taking all the measures necessary to ensure the best possible conditions of preservation of their stocks, so as to avoid their becoming unfit for human consumption.

(*f*) **Sugar.**

BELGIUM

The order of September 30, 1947 (*M. B.*, *No*,284, *October* 11, 1947, *p.* 9383) deals with the mobilization of the sugar production of 1947. The owners of sugar refineries are required to report to the Ministry of Supply and of Imports twice a month the quantities of sugarbeet received by them, as well as their production of sugar and of its by-products.

(*g*) **Fats and oils.**

FINLAND

The resolution of the Council of Ministers No. 675 of September 4, 1947 (*F. F.*, *No.*, 675-678, *September* 8, 1947, *p.* 1069) contains new measures taken in conformity with the law of May 6, 1941, with a view to the control of economic life during the period of crisis.

The object of the resolution consists in ensuring the control of the production, the imports and the sale of lard, as well as of its blocking. The producers of lard are not permitted to sell their product without a special authorization by the Commission of Supplies. Moreover, they are held to keep a special register in which to enter the data concerning their production for every month. As far as the importers are concerned, they will have to report to the Ministry of Supplies the kind and the quantities of lard imported by them. The resolution also contains strict pro-

visions concerning the control of wholesale and retail trade in lard, including a prohibition of all purchases of lard without special permission from the Ministry of Supplies.

ITALY

The decree-law No. 1171 of October 29, 1947, (*G. U.*, *No.* 255, *November* 6, 1947, *p.* 3274) repealed the provisions of the decree-law No. 356 of November 20, 1946, concerning the compulsory delivery of fats obtained from pigs slaughtered for family consumption. Such slaughtering, under the new enactment, is subject to the following restrictions : one pig a year for every five persons in the family or, in the case of establishments or institutions, such as hospitals, nursing homes, sanatoria, hostels, religious communities or colleges, one pig a year for every five inmates.

UNITED KINGDOM

An Amendment No. 2, dated April 19, 1947, (*S. R. & O.*, 1947, *No.* 701), has modified the Edible Oils and Fats (Control of Sales) Order, 1944, as amended (*S. R. & O.*, 1944, *No.* 672 *and* 1946, *No.* 386). This amending Order removes the restrictions on the sale of olive oil, almond oil, peach kernel oil (or apricot oil), teaseed oil and hazelnut oil to trade users.

(*h*) Fruits.

SWITZERLAND

The order of the Federal Council of August 20, 1947 (*R. L. F.*, *No.* 35, *September* 4, 1947, *p.* 962) is concerned with the utilization of the 1947 production of pip fruit and the country's supply with such fruits and their derivates. The spirit monopoly, to which the application of this enactment is entrusted, will have to take all the necessary measures to restrict, as far as possible, the use of the harvested fruits for the distillation of alcohol. For this purpose, it will encourage the transformation of the surpluses of fruits into products readily lending themselves to conservation and will assist in increasing the supply of fruits and their derivates to the poor and the needy. The distillers may be required to obtain an authorization for the distillation of alcohol from fruits. For the utilization of dried fruit mash it is provided that the allocation of concentrated feeds may be conditioned on the acceptance of a certain quantity of this by-product of distillation. The firms engaged in the sale or the transformation of fruits are made subject to a control of the quality of the fruits, the ciders, the juices and the dry fruit mash they are dealing in.

An instruction of the Federal Spirits Monopoly dated August 29, 1947 (*R. L. F.*, *No.* 35, *September* 4, 1947, *p.* 987) contains regulations concerning the sale of fruits at reduced prices to people in straitened circumstances. Such sales will be made exclusively for the benefit of persons who cannot buy fruits at the current market prices. The right to take advantage of the sale of fruit at reduced prices is to be determined by the income and capital limits fixed by the cantons for the purposes of public assistance. The communes are authorized to purchase fruit on these conditions for the poor on relief, as well as for the relief establishment, hospices, popular assistance messes and other similar institutions. The rural communes particularly rich in fruit trees are excluded from the benefits of such sale. The same applies to persons who grow fruits themselves.

II. - AGRICULTURE

(*a*) The organization of agriculture and of the farmers.

PORTUGAL

The multiplicity of funds established in the various organizations dependent upon the Ministry of National Economy presented numerous inconveniences and rendered their unification extremely desirable, all the more so that some of these funds were no more needed for the purpose for which they had originally been created. Apart from the advantages of such concentration, the merging of these funds would permit the abolition of many taxes whose proceeds went to the old funds.

Such financial concentration was effected by the decree-law No. 36501 of September 9, 1947 (*D. d. G.*, 1*st series*, *No.* 209, *September* 9, 1947, *p.* 857) which established the Fund of Industrial Development and the Fund of Supplies, The former of these funds has for its object the encouragement of the installation and of the operation of industries useful for the national economy. It will be constituted by the allocation to it of the sum of 150,000,000 *escudos* levied on the aggregate amount of the old funds. Its operation will be subject to regulation through orders issued by the Ministries of Finance and of National Economy.

The other new Fund, regulated by a decision of the Minister of National Economy, has for its object the financing, for the benefit of the consumers, of part of the costs of the articles of first necessity, as well as the promotion of the installation and equipment of refrigerating plants, grain elevators and warehouses. To this Fund will be allocated the balance of the sums belonging to the merged old funds, as well as their receipts.

An Appendix to the decree contains a list of

the old funds subject to the mer
prise funds belonging to the following organizations : the national *juntas* of oil, of fruit, of animal products, of wine ; the Federation of the flour milling industry ; the trade regulation commissions for the following commodities : codfish, raw cotton, coal, metals, oleaginous plants and vegetal oils ; chemical products ; the *Gremios* of the rice industry, of the cod fishing industry, etc. The decree-law of September 9, 1947, does not apply to certain funds placed at the disposal of corporative bodies whose destination has been determined by a law and not by an executive decision of the Government. The decree-law, however, authorizes the Minister to add to the original list, by executive deliberation, other funds or current allocations.

The decision of the Minister of National Economy containg the regulations for the new Fund of Supplies, was issued on September 17, 1947 (*D. d. G., 1st Series, No.* 218, *September* 19, 1947, *p.* 932). The Executive Commission of the Fund consists of the Vice-President of the Corporative Technical Council, acting as President of the Commission, and of two members appointed by the Minister of National Economy. The Chief of the Administrative Section of the Technical Council acts as Secretary of the Commission, without voting power, and is entrusted with the direction of the Services of the Fund. The decision then defines the functions of the Commission : the drafting of the annual budgets of receipts and expenses, of the report etc., to be submitted to the Minister ; the keeping of weekly balances of expenses, liabilities and assets etc. ; the study of measures within the scope of the Fund's activity, with a view to giving advice or to submitting propositions to the Minister etc. In addition to the ordinary receipts of the Fund, indicated in the decree-law, the Fund may obtain other allocations by the decision of the Minister. As to the expenses of the Fund, they consist of the expenditure inherent in the operations for which it was constituted, of the charges taken over with the old Funds merged with it, of the current expenses in connection with the staff, the various working materials etc. The receipts are collected by the organizations to which the incorporated old Funds had originally been assigned and paid by these organizations to the General Deposits Institution on the new Fund's account, the Institution presenting to the Commission weekly reports on all the sums received and paid on behalf of the Fund. All expenses, with the exception of those of administrative nature, in excess of 5,000 *escudos* are subject to the Minister's authorization. The members of the Commission are paid attendance fees for the meetings, while the President and the Secretary get special remuneration, the amounts of both the attendance fees and the remunerations being determined by the Minister.

CZECHOSLOVAKIA

With a view to promoting the development of agriculture and forestry and to protecting the interests of those engaged in these occupations, the law of July 11, 1947 (*Sb. z. n., No.*, 67, *August* 14, 1947, *dec.* 145, *p.* 705), concerned with the organization of the agriculturists of the Czechoslovak Republic, created the following bodies, to which it recognizes the status of legal personalities under public law : the Union of Czech Agriculturists, with its seat in Prague, for Bohemia, Moravia and Silesia ; the Union of Slovak Agriculturists, with its seat at Bratislava, for Slovakia ; the Central Council of Czechoslovak Agriculturists, with its seat in Prague.

At the same time, the law abolishes the corresponding old organizations : the Agricultural and Forestry Union for Bohemia and Moravia in Prague and the Chamber of Agriculture at Bratislava. Their functions, their assets and liabilities and their property, as well as their staff, are transferred to the new Unions, while in the case of Slovakia part of the functions of the old Chamber may pass to public offices.

The objects of the Unions are as follows : to develop production ; to assure to the farmers a fair remuneration for their work, especially in connection with the marketing of their products ; to study the farmers' needs and the means of their satisfaction, and to assist in securing such satisfaction ; to provide for the cultural life of the agricultural population ; to secure to the farmers an effective participation in the settlement of the various economic and social questions arising in connection with agriculture and with the trade in agricultural products ; help the proper formation of prices ; conclude, on behalf of the agriculturists, general labour and wages contracts ; provide for the assistance to farmers in case of damages from the elements etc. Through the medium of the Central Council, the Unions, which represent the interests of the agriculturists, can submit to the Legislature, to the Government and to the various Departments their suggestions and their opinions. The government departments must, in all questions of principle, seek and take into consideration the advice of the Unions. Within six months from the coming of the law into force, the Minister of Agriculture and Forestry, acting in agreement with the other Ministers concerned, will transfer to the Unions certain functions of general interest in connection with the maintenance and the development of production. The same he is authorized to do from time to time.

The membership of the Unions consists of : the owners, tenants or other usufructuaries of agricultural or forest holdings of one or more hectare, who pay the land tax, (except in garden cities of settle-

ments), who operate their farm personnally and who have reached the age of 18 years ; the organizations concerned with agriculture and forestry, with the production of hops, flax, and wine, with animal husbandry, with hunting etc., as well as the central organizations of agricultural and forestry societies, in so far as they enjoy the status of independent legal personality, the branches of such organizations and the persons affiliated to them thus being excluded. The membership of the Unions also includes : the State ; the organs of local self-government ; the legal personalities and the institutions engaged, on their own account, in the operation of an agricultural holding. May also be admitted to membership, on their having reached the age of 18 years : the members of the families of the agriculturists referred to above; the farmers with farms under one hectare in size ; the professors and teachers in the agricultural schools ; the professional agricultural labourers.

The Unions are divided into local Associations and District Associations. Both the Local and the District Associations can acquire legal rights and incur legal liabilities, but in all matters beyond those falling within the scope of their current economic activities all their contractual engagements are subject to authorization on the part of the President of the Union. There may also be constituted, but without their being recognized as legal personalities, Regional Associations according to the different branches of production, particularly in the case of forestry.

Placed over the two new Unions, there is the Central Council, which is the highest body entrusted with the representation of the farmers' interests. The functions of this body consist in : the defence of the general interests of the agriculturists, including intervention in their favour before the authorities and the governement departments ; the assistance to them in their efforts for the development of agriculture and forestry ; the raising of the economic, social and cultural standards of the agricultural population ; the cooperation with the Government in an advisory capacity in agricultural matters ; the participation in international activities in view of protecting the interests it is called upon to support. The composition of the Central Council, its functions etc., in respect both of agriculture and of forestry, are to be laid down in the Statutes of the council, whose working-out is the task of the first meeting of this body and which have to be approved by the Government on their presentation by the Minister, the same procedure being followed in the case of any eventual modifications in the Statutes. This first constituent meeting, which will also appoint the members of the Central Council, will consist of a total of 75 delegates elected by the Central Committees of the two Unions, in proportion to their membership, as well as of 8 members of the Central Committee of the Czech Union and 4 members of the Central Committee of the Slovak Union representing forestry. Both for the approval of the Statutes and for any future modifications in them, the majority must amount to no less than 2/3 of the total voting power of each of the two Unions separately. The expenses of the Council in connection with the activity of the Unions, are to be met by the latter, in proportion to the number of their members.

(*b*) Land reclamation.

UNITED KINGDOM

The Ploughing Grants Regulations, 1947, dated April 18, 1947 [*S. R. & O.*, 1947, *No.* 708) have been made by the Minister of Agriculture and Fisheries, the Secretary of State for Scotland and the Secretary of State for the Home Department under Section 27 (2) of The Agricultural Development Act, 1939 (2 *&* 3 *Geo.* 6. *c.* 48), as amended by Section 11 (2) of The Agriculture (Miscellaneous War Provisions) Acts, 1940 (3 & 4 *Geo.* 6 *c.* 14), and Section 1 of The Agricultural Development (Ploughing up of Land) Act, 1946 (9 & 10 *Geo.* 6. *c.* 32).

These Regulations define the periods in the year 1947 during which grassland must be ploughed up and (if reseeded) reseeded in order to be eligible for ploughing grant.

The Ploughing Grants (Application to 1947) Order, 1947, dated April 18, 1947 (*S. R. & O.*, 1947, *No.* 709) extends to the ploughing up of land in the year 1947 the operation of the statutory provisions of the Part IV of The Agricultural Development Act, 1939, as amended by Sections 11 and 12 of The Agriculture (Miscellaneous War Provisions) Acts, 1940 and by Section 1 of the Agricultural Development (Ploughing up of Land) Act, 1946 as they applied to the ploughing-up of land in the year 1939.

SWITZERLAND

The Federal order of October 8, 1947 (*R. L. F.*, *No.* 40, *October* 9, 1947, *p.* 1094) provides for special measures of assistance to the regions affected by the drought. Such aid is to consist mostly in measures aimed at maintaining the productive capacity of the farms which have suffered from this visitation. The following measures are specifically provided for : (*a*) the importation of supplementary quantities of fodder and its allocation at reduced prices to the stock farmers lacking animal feeds ; (*b*) the granting of subsidies for the transport of livestock from the regions affected by the drought to those where the fodder situation is better ; (*c*) the granting of contributions to the costs of transport of fodder in the mountain districts ; (*d*) the acceleration of the rate of elimination of animals affected with tuberculosis ; (*e*) the granting of subsidies to

the farmers who have to purchase cows and heifers with a view to replacing those they have had to do away with before their time owing to lack of fodder. In all these cases, the federal grant in assistance will be made on condition that the cantons concerned grant a subsidy aqual to at least half that granted by the Federal Governement.

The executive order of October 24, 1947 (*R. L. F., No.* 43, *October* 30, 1947, *p.* 1127) contains detailed regulations in connection with the application of the above order.

(*c*) Regulations concerning the different crops.

FRANCE

The order of September 25, 1947 (*J. O., No.* 227, *September* 26, 1947, *p.* 9711) introduced a levy of 2 francs per hectolitre of wine, on grape must, on wines, natural sweet wines, mistelles, liqueurs, vermouth etc on their being removed from the holding, save in case of their transfer by the producer from one celar to another. The proceeds of this levy are to be used for the improvement of the cultivation of the vine and of the quality of the wine produced, as well as for the extension of their marketing facilities. They are to be paid to the Fund of Agricultural Progress, Viticultural Section.

ITALY

With a view to promoting the development of cereal growing and to increasing the supply of cereals to the market, the decree-law No. 888 of September 5, 1947 (*G. U., No.* 216, *September* 20, 1947, *p.* 2777) permits the agricultural producers to dispose freely of part of their cereal production for the agricultural year 1947-48. The compulsory delivery to the Government stock of wheat, rye, barley, maize and rice paddy for this crop year is limited to fixed quotas. The embargo on the whole quantity harvested, provided for by the decree of May 30, 1947, No. 439, is thereby abolished. The farmers must now produce and deliver to the « People's Granaries » the quantities of cereals fixed by the responsible authorities, while they are left free to dispose on the market of all the quantity remaining to them on the delivery of the quotas due from them being effected. These surpluses, by whomever they might actually be held, can in no case be exported abroad.

The ministerial order of September 13, 1947 (*G. U., No.* 217, *September* 22, 1947, *p.* 2793) grants the producers of sugarbeet delivering to sugar refineries their 1947 crop, over and above the normal sugar ration, an allowance of 500 grams of sugar for each quintal of sugarbeet delivered, up to a maximum of 6 kilograms for each grower and for each dependent member of his family. This concession also applies to the owners, the managers and the tenants of farms on which sugarbeet is cultivated. The farmers growing sugarbeet for seeds are entitled to an allowance of 8 kg. of sugar for each quintal of seeds delivered to the seed selection centres, also up to a maximum of 6 kg. for each grower and for each dependent member of his family.

UNITED KINGDOM

The Buckwheat, Millet and Canary Seed (Control of Cultivation) Order, 1947, dated January 7, 1947 (*S. R. & O.*, 1947, *No.* 36) revokes The Buckwheat and Canary Seed (Control of Cultivation) Order, 1944 (*S. R. & O.*, 1944, *No.* 1445), made under Defence Regulation 62, and re-enacts it while extening the control hitherto exercised over buckwheat and canary seed to millet. Except with the written consent of the War Agricultural Executive Committee for the county in which the land is situated, no occupier of any land shall sow or grow thereon any buckwheat, millet or canary seed.

(*d*) Measures for the protection of plants.

NETHERLANDS

The law of July 3, 1947 (*Stbl., No. H.* 220, *August* 22, 1947, *p.* 1) is concerned with measures of protection against the doryphore and the destruction of this insect. Its short title is : the law of 1947 on the doryphore. After giving some definitions, the law starts by imposing upon every usufructuary of any land the obligation of destroying the doryphores that may be present on it. Should the usufructuary fail to do so within the brief term given him by the local burgomaster, through a comunication by registered letter, the burgomaster has the necessary work performed at his expense, following one or more of the methods indicated by the Chief of the Phytopathological Service, such as : catching the doryphore ; treatment of the potatoes plants with insecticides, or their total or partial destruction ; the screaning of the earth ; the treatment of the earth with special preparations.

The law then contains provisions bearing upon the powers and the fuctions of the Chief of the Phytopathological Service. This is authorised every year, for the duration of twelve months, to establish for certain communes or regions, a special regime, under which they will be subject to definite obligations in connection with the struggle against the doryphore, His decisions to this effect must be immediately communicated by him to the burgomasters concerned and published by the latter within 48 hours. The obligations imposed under such special regime consist in : the obligation for anyone who finds doryphores immediately to give communication of the fact to the burgomaster ; the obligation of the burgomaster, as soon as he receives such

communication or as he learns or suspects the presence of the doryphore, to communicate the fact to the Chief of the Phytopathological Service and to circulate to the farmers the order for the measures described above to be taken. The Chief of the Ph. S., if he has reason to fear the spread of the doryphore in certain communes or sections or the development of an already existing infestation, may order the burgomasters to have the potatoe plants treated with an insecticide to be specified by him, fixing a term for the execution of such order, and may add further instructions. The burgmasters must make the said instructions known to all those concerned by public notices or otherwise. In case of failure, on the part of those concerned, to carry out the necessary operations, they are to be performed by authority at their expense.

In those cases in which these proceedings would not be applicable or could result in injustices, the Minister of Agriculture, acting either direct or through the Chief of the Ph. S., may have the necessary measures taken at public expense. He is, moreover, authorised to prohibit, for the next year, the growing of potatoes on the holdings or parts of holdings affected ; or, on the contrary, he may order the cultivation of such land to potatoes, in order to concentrate upon it the doryphores. The Minister can also prohibit the cultivation of potatoes, or permit it only under certain conditions, in the communes or fractions where agriculture or gardening are practised mainly for export. In all these cases the growers may be granted an indemnity for their losses. The Chief of the Ph. S. may apply to the burgomasters in order to get assistance for enforcement.

Are forbidden the transport and the importation of live doryphores, except with special permit. The Minister is authorized to prohibit, during the period from March 15 to October 14, the importation or the transit of live plants or of parts of plants, from certain countries, or make them subject to certain conditions. Is forbidden the transport of potatoe leaves coming from land either infected or suspected of being so.

UNITED KINGDOM

The Sale of Strawberry Plants and Blackcurrant Bushes (Scotland) Order, 1947, dated March 6, 1947 (*S. R. & O.*, 1947, *No.* 408 *S.*12) prohibits the sale in Scotland of strawberry plants and blackcurrant bushes unless they are from stocks which have been certified to the effect that they have been inspected whilst growing and found to conform to certain standards of purity and health. Provision is made for the issue of licences to meet exceptional cases.

The Importation of Plants Order of 1947, dated April 15, 1947 (*S. R. & O.*, 1947, *No.* 671) revokes The Importation of Plants Order of 1939, as amended (*S. R. & O.*, 1939, *No.* 532 ; 1940, *No.* 544 *and* 1945, *No.* 583).

It extends to the whole of Europe, the United States of America and the Dominion of Canada the restrictions imposed by previous Orders, now revoked, on the landing in Englang and Wales of living plants, potatoes, raw vegetables and cider apples from countries in which the Colorado Beetle exists. It also requires, as did the previous Orders, certifi. cates of health to accompany living plants and potatoes landed in England and Wales from any place abroad.

With the same purport and contents has been made The Importation of Plants (Scotland) Order, 1947, (*S. R. & O.*, 1947, *No.* 811 *S.*31).

For the prevention of the introduction of the Cherry Fruit Fly two Orders have been made in 1947. The Importation of Raw Cherries Order of 1947, dated April 15, 1947 (*S. R. & O.*, 1947, *No.* 672), imposes restrictions on the importation of raw cherries in 1947 during that period of the year when there is danger of the introduction of the Cherry Fruit Fly. The above Order does apply to England and Wales only, whilst to Scotland shall apply The Importation of Raw Cherries (Scotland) Order, 1947, dated May 9, 1947 (*S. R. & O.*, 1947, *No.* 897/*S.*34)

(*e*) Animal husbandry and the protection of livestock.

GREECE

The ordinance No. 10618 of August 19, 1947 (*E. K.*, *No.* 141, *September* 24, 1947, *part* II, *p.* 769), with a view to protecting the livestock in the North of Greece, forbids : (1) the slaughtering and the sale of cattle not having reached the age of 9 years ; (2) the transport of cattle to the South of Greece with the evident purpose of selling it for slaughter : (3) the slaughtering of cows and buffalo cows with calf, irrespective of age, and the sale of their meat ; (4) the slaughtering of sheep and of goats and the sale of thir meat.

UNITED KINGDOM

The Hill Farming Act, 1946 (9 *&* 10 *Geo.* 6 *c.*73) provides that Schemes may be made for subsidy payments in respect of hill sheep. With regard to Scotland this Scheme has been made by the Secretary of State for Scotland with the approval of the Treasury with the title The Hill Sheep (Scotland) Scheme, dated March 10, 1947 (*S. R. & O.*, 1947, *No.* 457/*S.* 18).

The Scheme makes provision for subsidy payments in respect of breeding flocks of ewes of breeds kept on hill land in accordance with the recognised practices of hill sheep farming. It defines these breeds, flocks and pratices. It also defines hill land, and contains consequential provisions about the computation of the number of sheep qualifying for sub-

sidy payments and other matters including provision against the assignement of subsidy payments. The Scheme does not fix the amount to be paid by way of subsidy payment which the Act requires the Secretary of State to prescribe in a separate Order; this Order is The Hill Sheep Subsidy Payment (Scotland) Order, 1947, dated March 10, 1947 (*S. R. & O.*, 1947, *No.* 458/*S.* 19). This Order prescribes in sections 8 and 9 the amount of subsidy payment which shall be made for each sheep which qualifies under the Scheme in relation to the fourth day of December in the year 1946.

The Scheme and the Subsidy payment in respect of England and Wales have been regulated *mutatis mutandis* by two analogous Orders, namely The Hill Sheep (England and Wales) Scheme, dated April 3, 1947 (*S. R. & O.*, 1947, *No.* 636) and The Hill Sheep Scheme Subsidy Payment England and Wales) Order, 1947, dated April 3, 1947 (*S R. & O.*, 1947, *No.* 667).

The Scheme sets out the conditions on which subsidy payments may be made to persons maintaining sheep of a hardy kind on hill farming land, and the Order prescribes the amounts of such payments for the season 1946-47. The payments vary according to the method by which the number of sheep in a flock is maintained, from 8s 9d to 4s. 4 ½d.

Similar provisions have also been made in respect of Northern Ireland, with The Hill Sheep (Norther Ireland) Scheme, 1947, dated May 2, 1947 (*S. R. & O.*, 1947, *No.* 837) and The Hill Sheep Scheme Subsidy Payment (Northern Ireland) Order, 1947, dated May 2, 1947 (*S. R. & O.*, 1947, *No.* 838).

The Hill Cattle (England and Wales) Scheme, 1947, dated May 16, 1947 (*S. R. & O.*, 1947, *No.* 975) has been made by the Minister of Agriculture and Fisheries in pursuance of Section 13 of The Hill Farming Act, 1946 (9 *&* 10 *Geo.* 6 *c.* 73).

The Hill Farming Act, 1946, provides that schemes may be made providing for subsidy payments to be made, in respect of cattle grazed on hill land. This scheme made by the Minister of Agriculture and Fisheries, with the approval of the Treasury, makes provisions for subsidy payments in respect of cattle grazed on hill land in England and Wales in the year 1947 and each of the next four succeeding years. It defines hill land and the descriptions of cattle to which the scheme applies; it also sets out the conditions under which the animals must be kept, and contains consequential provisions against overstocking, and against the assignement of subsidy payments, and provides for the making of annual applications for subsidy payments, the computation of the number of cattle qualifying for subsidy payments, and other matters. The Hill Farming Act, 1946, requires the amount to be paid by way of subsidy payments in respect of an animal to be prescribed by the Minister in a separate order; this order is The Hill Cattle Subsidy Payment (England and Wales) Order, 1947, dated May 16, 1947 (*S. R. & O.*, 1947, *No.* 976) which prescribes the amounts of such payments for the year 1947 for different descriptions of cattle.

The scheme and the subsidy payment in respect of Scotland have been regulated *mutatis mutandis* by two anologous Orders, namely The Hill Cattle (Scotland) Scheme, dated May 12, 1947 (*S R. & O.*, 1947, *No.* 911/*S.*35) and The Hill Cattle Subsidy Payment (Scotland) Order, 1947, dated May 12, 1947 (*S. R. & O.*, 1947, *No.* 912/*S.*36).

(*f*) Animal diseases.

FRANCE.

The law No. 47-1564 of August 23, 1947 (*J. O.*, *No.* 199, *August* 24, 1947, *p.* 8375) declares null and void the laws of February 18, 1942, and of June 22, 1944, concerning the institution of an order of veterinary surgeons and replaces their provisions by new ones on the creation of a National Order of Veterinary Surgeons. According to this enactment, in every region or district to be determined by an order of the Minister of Agriculture, all the veterinary surgeons and doctors in veterinary science exercising their profession in that district, with the exception of those on permanent service with the Army or invested with public functions, are considered as forming part of the Order of Veterinary Surgeons whose seat is in the administrative centre of the district concerned. The Regional Council compiles, for each of the *départements*, lists of veterinary surgeons admitted to the exercise of their profession. The inscription takes place after the control of the professional qualifications of the veterinary surgeons. Within the scope of the Regional Council comes the supervision of the exercise by the veterinary surgeons of animal medicine and surgery, as well as the study of the different problems arising in this domain and the bringing of such problems to the attention of the Supreme Council of the Order. The Supreme Council of the Order of Veterinary Surgeons has its seat in Paris and consists of eight members. Its tasks consist in the maintenance of professional discipline within the Order and in watching over the observance of the laws and regulations governing its activity. It is authorized to create, acting on a national scale, institutions of mutual assistance for its members, as well as various social works and pension schemes within the profession.

(*g*) Seeds, fertilizers and feeding stuffs.

BELGIUM.

The ministerial order of October 13, 1947 (*M. B.*, *No.* 297, *October* 24, 1947, *p.* 9945) deals with the trade in seeds. According to the preamble of the

order, « with a view to avoiding fraudulent practices in the sale of seeds not controlled by the General Service for the Control of Agricultural and Horticultural Seeds and Plants, it is necessary to make subject to previous authorization the activity not only of the commercial seed sorters and of retail dealers, but also of all those who perform the sorting of cereal seeds or of agricultural varieties of dry pulse ». Clause 2 of the ministerial order of February 10, 1946, is therefore repealed, with the substition for it of a new text, which provides that : (1) the purchase from the producers, the sorting and the preparation of indigenous controlled seeds may be effected only through dealers in sorted seeds approved by the Service of Control ; (2) the sorting of controlled or uncontrolled indigenous seeds has to be made through persons and by means of appliances approved by the said Service ; (3) the sale of any kind of controlled seeds, either indigenous or imported, to farmers and gardeners must be made exclusively by retail dealers approved by the Service of Control.

The ministerial order of September 3, 1947 (*M. B.*, *No.* 254, *September* 11, 1947) extends the application of the fixed price system to planting potatoes.

FRANCE

The order of September 20, 1947 (*J. O.*, *No.* 226, *September* 25, 1947, *p.* 9638) modifies the preceding order of January 19, 1946, bearing upon the control of the trade in fertilizers, by providing that, from the date of publication of the new order, the trade and the transportation of superphosphates and of ground phosphates are no more subject to the regulations concerning the traffic in fertilizers.

GREECE

The ordinance No. 79833 of June 6, 1947 (*E. K.*, *No.* 109, *August* 9, 1947 *part II*, *p.* 591) introduces certain modifications into the regulations bearing upon the control of the production of seeds of secondary cereals, fodder crops and pulse.

NORWAY

The Ministry of Supplies and of Reconstruction, in an order dated August 20, 1947 (*N. L.*, *No.* 33, *August* 28, 1947, *p.* 738), issued new provisions bearing upon the regulation of the rationing and of the sale of feeding stuffs. These provisions are based upon the law of May 14, 1947, concerning the measures to be taken in order to ensure the supply of the first necessaries, as well as upon the Royal resolution of January 26, 1945.

The various kinds of concentrated feeding stuffs are divided into two categories : protein feeds and hydrocarbonate feeds. The former comprises herring and other fish flour, cod liver flour and any flour made of meat or of its derivates. To the latter category belong all the concentrated feeding stuffs made of cereals and of their derivates.

Feeding stuffs subject to rationing cannot be sold or otherwise ceded to consumers without special authorization by the Commission or the General Direction of Supplies, and no transfer of such commodities by the producers (factories or mills) to wholesale or retail dealers may take place without special authorization by the same bodies.

(*h*) Agricultural contracts.

FRANCE

A new legal enactment, the law No. 47-1737 of September 5, 1947 (*J. O.*, *No.* 210, *September* 6, 1947, *p.* 8898) seeks to define with greater precision the scope of the application of clause 33 (right of resuming possession) of the statute of rural leases, in conformity with the interpretation given it by the law of April 9, 1947 (see *European Bulletin*, *No* 1, *p.* 78). By this new enactemnt, clause 34 of the ordinance of October 17, 1945, already modified by the law of April 13, 1946, is altered again by the provision that the tenant has the right either to remain in possession, if the decision which sanctions his eviction had not yet been executed, or to the reintegration into the holding or to the resumption of possession of the lots concerned, with or without damages and accrued interests, or finally, to the compensation for damages, with interests, in the following two cases :

(1) in case if the person claiming exception to the right of resuming possession is not in a condition permitting him effectively and permanently to exploit the landed property concerned, as provided by par. 1 of clause 33, as amended by the law of April 9, 1947 ;

(2) in case if the owner of the land has exercised his right of resumption of possession exclusively with the object of fraudulently circumventing the right of the tenant, more particularly through the lease or the sale of the land.

Neither of these provisions, however, is applicable in the case of the tenant being an engrosser of leased land, a dealer in livestock or a merchant.

The law No. 47-1830 of September 16, 1947 (*J. O.*, *No.* 219, *September* 17, 1947, *p.* 9311) extends to precarious leases (*domaine congéable*) the benefits of the law of April 13, 1946, defining the statute of agricultural leases and of the form of share tenancy known as *metayage*. Any *bona fide* tenant occupying, on the date of promulgation of the law, farm land leased in conformity with the principles of precarious lease (*domaine congéable*), subject to the particular rights of the farmers in respect of the buildings and the superficies known as reparation rights (*droits reparatoirs*), will benefit by the provisions of the ordinance of October 17, 1945, modified and supplemented under the law of April 13, 1946,

and the subsequent enactments, notwithstanding any eviction order against him or any other judicial decision not yet effectively executed.

The law also contains provisions bearing upon the regulation of the right of preemption in respect of the reparation rights mentioned above ; upon the construction of living houses and farm buildings by the occupier ; upon the plantation of trees on land unsuitable for normal cultivation ; upon the respective shares of the landowner and the occupier in the payment of the land tax, etc.

ITALY

The decree-law No. 975 of August 12, 1947 (*G. U. No.* 226, *October* 2, 1947, *p.* 2930) providing for the modification and the extension of the existing legislation concerning farm leases, authorizes the revision of rents envisaged by the decree of April 1, 1947, No. 277, even in case of the rents being exclusively constituted of cereals subject to compulsory delivery to the State pools. The same revision applies to rents fixed in conformity with the provisions of the decree-law of April 5, 1945, No 157. Such rents are calculated on the basis of 70 per cent. of the prices paid for the products delivered to the public pools, while the balance of 30 per cent. of the price is considered as a bonus to the producer.

(*i*) Measures concerned with rural properties.

SWEDEN

The law No. 288 of June 30, 1947 (*S. F., No.* 288-298, *June* 30, 1947, *p.* 481) provides for the exercise of control over farms, with a view to preventing their deterioration. The farms taken into consideration are all those with cultivated area of no less than two hectares. The supervision over the farms is entrusted to special Agricultural Commisssions.

It should be pointed out that the law does not consider as deterioration either the abandonment of a farm, if such abandonment is justified, or the removal from it of farm buildings as a result of the enclosure or consolidation of holdings etc.

Finally, the law specifies the responsibilities respectively of the landowner and of the tenant for the carrying-out of improvements on the deteriorated holding.

III. - RURAL ECONOMY AND AGRICULTURAL MARKETS

(*a*) Plans of agricultural reconstruction.

POLAND

The law concerning the Plan of Economic Reconstruction (for the years 1947, 1948 and 1949), of July 2, 1947 (*D. U. R. P., No.* 53, *August* 16, 1947, *doc.* 285, *p.* 857) is an important document, containing, besides 101 clauses, numerous tables, both in the text and in the appendices.

The general economic and social objects of the plan are as follows : to ensure the organization and the structural renewal of the country by increasing the importance of industry and of the essential services in the total production ; to create greater opportunities of employment in the countryside by the expansion of agricultural production and the development of auxiliary occupations, with the object of doing away later with rural over-population and of ensuring the full employement in the towns of the available labour ; to repair the damages caused by the war, due account being taken of the direction to be followed and of the further development desired and avoiding any fresh diminution in the national capital ; to bind more closely to the country the newly recovered territories by means of their colonization and their adaptation to the needs of the national whole, by the efficient exploitation of the sea shores, by the developments of industries, arts and crafts and of essential services dependent for theire existence and prosperity on the ports and the sea ; to develop shipping ; to increase by such means the part played by the country in world economy ; to develop international exchanges and to ensure to the country the necessary foreign credits ; to facilitate the return of the Poles to their native country by ensuring better conditions of settlement and of work, both for those who abandoned the country as a result of the war and for the old emigrants who went abroad to earn their bread ; to reduce the costs of production of commodities and services by improving the technique of production, by raising the standards of efficiency of the machines and of the workers, by seeking to achieve economies in materials through a proper regulation of the use of the means of production and of circulation.

(*b*) Control of prices.

BELGIUM

The ministerial order of September 24, 1947 (*M. B., No.* 275, *October* 2, 1947, *p.* 9030) provides for the control of sugarbeet prices.

Numerous other orders contain provisions for the control of prices of other products of minor importance, including those of confectionery.

DENMARK

A circular order under No. 156 of April 11, 1947 (*L. A., No.* 25, *June* 9, 1947, *p.* 244) fixed the maxima prices of chaff, as well as the fiscal duties on wheat and wheat flour, and provides for the compulsory admixture of other cenals to rye in the process of milling.

The provisions contained in the circular order April 11 are based on the law No. 158 of March 29, 1943, concerning the supply of food etc.

In the first instance, the order fixes a maximum price of 22 crowns per 100 kg of chaff obtained in the milling of rye, wheat and barley.

The compulsory deliveries of wheat flour are made subject to a fiscal duty of 4.55 crowns per 100 kg.

As far as imported wheat flour is concerned, its importation is subject to the payment of a duty whose amount is to be shown in the import permits.

Wheat flour will have to be made of a mixture of wheat and barley, in the prescribed proportions.

Detailed regulations are established for the composition and the prices of the different kinds of flour. The millers engaged in the milling of bread-making cereals for human consumption must be provided with a special authorization by the Ministry of Agriculture and Fisheries. The millers, moreover, are subject to the payments of a fiscal duty, but in compensation they are entitled to a delivery bonus payable on the different kinds of flour, provided it is milled in conformity with the existing regulations.

The law of June 4, 1947 (*L. A.*, *No.* 28, *July* 25, 1947, p. 299) provides for the prorogation of the law No. 351 of July 8, 1943, which introduced a fiscal duty on wheat and wheat flour with a view to permitting a reduction to be made in the price of rye bread.

The circular order No. 394 of September 19, 1947, (*L. A.*, *No.* 47, *October* 8, 1947, *p.* 394) contains the revised text of the law of November 28, 1942, bearing upon the control of prices.

The law has for its object to achieve a rational control of prices and to prevent, as far as possible, the engrossing of merchandise, speculation and the intervention of middlemen in commercial transactions.

The Ministry of Agriculture and Fisheries, in cooperation with the Ministry of Supplies, are made responsible for all the necessary measures with a view to the fixation and the control of prices. The law absolutely prohibits the application of unfair prices, providing that the price of any commodity may never be permitted to exceed the amount represented by the costs of its production or acquisition, the costs of transport and an equitable margin of profit for the seller. The General Direction of Prices is authorized to permit, under special circumstances, the prices to be raised, taking into consideration the increase in the costs of production or other adequate reasons.

In any case, the traders are authorized to raise prices when they are in a position to furnish conclusive evidence of their having fulfilled all their obligations. On the other hand, any increase in prices by having recourse to particular agreements or to other arrangements is forbidden.

The Price Control Commission has the power to demand of all those concerned all the information that may be necessary for the actual application of control over prices. The said Commission is authorized, when such measure may be rendered necessary by exceptional circumstances and for a period not exceeding three months, to fix maxima prices for certain commodities, any change in the prices so fixed being permitted only with the consent of the Commission. The Commission is also authorized, always with a view to achieving a stabilization of prices, to issue special regulations for the classification and the marking of merchandise.

The law of September 30, 1947 (*L. A.*, *No.* 46, *September* 30, 1947, *p.* 1131) provides for a contribution by the State for the purpose of adjustment of the prices of butter and lard.

The current price of butter is fixed at 4.16 crowns per kilogram, and this basic price is applicable invariably to all the sales of butter to consumers within the country.

The situation is the same with the price of lard, which is fixed at 2.65 crowns a kilogram. The State subsidy is granted with a view to achieve a compensation of the disparity between the basic prices of these products on the home market and their average export prices.

The payment of the subsidies, as well as the levying of fiscal duties by which they will be financed, were to begin on September 26 for butter and on September 29 for lard.

FINLAND

The resolution of the Council of Ministers of October 18, 1947 (*F. F.*, *No.* 760-763, *October* 24, 1947, *p.* 1197) fixes the price of dairy butter at 328 marks, the price of natural butter passed through the dairies at 310 marks and the price of any other butter at 300 marks.

By dairy butter is meant any butter coming from abroad and fully processed in the dairies.

The resolucion of the Council of Ministers No. 758 of October 16, 1947 (*F. F.*, *No.* 758-759, *October* 20, 1947, p. 1190), based upon the law of May 6, 1941, which concerns the regulation of the country's ecomic life, introduced certain bonuses and subsidies with a view to the stabilization of the prices of dairy products and to encouraging their marketing.

By milk the said resolution means whole milk and cream, unless otherwise disposed in accordance with the resolution of May 22, 1947.

By dairy butter and natural butter are meant the kinds of butter considered as such in accordance with the terms of the regulations in force concerning these products.

With a view to achieving the stabilization of the prices of dairy butter, there has been introduced a duty of 6 marks per kilogram of butter delivered by the dairies to the centrals. The same duty is levied on natural butter as well. Besides, an in-

demnity of 10 penni per kilogram of milk is granted to the dairies as a contribution to the expenses involved in the transport of milk from the place of production. If the transport falls upon the purchasing establishments themselves, the Government is authorized to grant them indemnities up to 75 per cent. of the total costs incurred in connection with the transport of the milk bought by them.

In the establishment of the prices of milk, account must be kept of its quality, its conservation capacity etc.

FRANCE

The order of August 28, 1947 (*J. O.*, *No.* 208, *September* 4, 1947, p. 8786) fixes the indemnities and compensations in connection with the prices and the modes of acquisition and of disposal of cereals and of their derivates for the 1947-48 campaign, in conformity with the decree No. 47-1464 of of August 7, 1947, dealing with the prices and the modes of payment, of storage and of sale of cereals for this campaign (see *Bulletin*, *No.* 2, *p.* 175).

GREECE

The ordinance No. 50/76901 of July 14, 1947 (*E. K.*, *N.* 42, *August* 14, 1947, *part II*, *p.* 613) fixes, provided they are not already otherwise fixed by other legislative provisions, the highest limits of permissible profit for certain foodsuffs and other articles of first necessity.

The ordinance No. 66/116832 of September 20, 1947 (*E. K.*, *No.* 142, *September* 27, 1947, *part II*, *p.* 779) establishes, for every day of the week, the list of meals that the restaurants, the eating houses and the other public catering places are permitted to prepare for their customers. The waiters in such catering places are ordered to keep a record of all the courses served to each customer. The ordinance also fixes the limits of authorized profit the owner of the catering establishment is permitted to make on every customer in connection with his or her consumption of fish or of beer, either in bottle or on draught.

SWITZERLAND

The order of the Federal Council of August 20, 1947 (*R. L. F. No.* 35, *September* 4, 1947, *p.* 987) fixes the prices of spirits distilled from pip fruit, as well as the fiscal duties levied on these liquors.

(*c*) The control of home and foreign trade.

DENMARK

A circular order of August 29, 1947 (*L. A.*, *No.* 333-344, *September* 8, 1947, *p.* 900) contains regulations bearing upon the exports of Danish cheese. These regulations are based upon the law No. 43 of February 11, 1942, concerning the production of, and the trade in, cheese. The new regulations prohibit the export of Danish cheese, with the only exception of the soft variety « Smelteost », unless the cheese to be exported is produced by a dairy entitled to the use of the special trade mark known as « lurmerket ». Detailed rules concerning the application of this trade mark and the proceedure to be followed by the dairies in order to qualify for the right of its use are to be issued, if and when necessary, by the Ministry of Agriculture and Fisheries. In any case this right will only be conferred upon the dairies applying for it if they answer fully to the required conditions in respect of the organization of their premises, of the quality of the cheese produced etc. The Governement organs entrusted with the control of dairy products, eggs etc. are authorized to seize the parties of cheese which they consider as not complying with the regulations as to quality, marking and packing.

FRANCE

The order of August 30, 1947 (*J. O.*, *No.* 212, *September* 8 *&* 9, 1947, *p.* 9881) renders compulsory the declaration of the stocks of foodstuffs and provides for measures for ensuring compliance with this prescription. Any person whose name is entered in the register of commerce or handicrafts is bound to make monthly declarations of the quantities of foodstuffs or products belonging to him or held by him either on his own or on another person's account. The list of foodstuffs whose stocks have to be declared comprises canned meat and fish, eatable fats and oils, bread-making flours, pure or mixed, and their derivates, coffee, tea, rice, cacao, sugar etc. The declarations of stocks must be signed and dated on the last day of the month and reach, in duplicate, the Director of General Supplies of the *département* where the stocks are located before the 5 of the following month.

The order of September 8, 1947 (*J. O.*, *No.* 213, *September* 10, 1947, *p.* 9056) contains the rules bearing upon the application of the ordinance of May 21, 1945, concerning the supply of wine to the Metropolis for the 1947-48 campaign, providing that, as from September 10, 1947, free trading is restored in all the phases of the trade in wine and in grape must of all kinds, either produced in France or imported.

The law No 47-1770 of September 10, 1947 (*J O.*, *No.* 214, *September* 11, 1947, *p.* 9086) contains the approval of an agreement concluded between the Government of the French Republic and the Goverment of New Zealand at Wellington, on July 2, 1947, concerning the opening of credits for the purchase of wool and of other commodities produced in New Zealand. A credit to the amount of 5,000,000 pounds sterling is thereby placed at the disposal of the French Republic by the *Reserve Bank of Zealand*, to be exclusively used for the payment for wools of New Zealand origin, or for any other New Zealand products. The wools and the products

thus acquired in New Zealand will be exported ot France or to other territories of the French Union.

The law No. 47-1812 of September 15, 1947 (*J. O., No.* 218, *September* 15 & 16, 1947, *p.* 9247) provides for the repression of manipulations and actions tending to interfere with the collection, the fabrication and the distribution of foodstuffs, commodities or products subject to rationing or to the quota system. Any person who, acting individually or in complicity with others, interferes or attempts to interfere, by any means whatsoever, with the collection, the fabrication or the distribution of foodstuffs, commodities or products subject to rationing or to the quota system, will be punished with imprisonment for a term variable form 6 months to five years and with a fine variable from 100,000 to 5,000,000 francs.

The same sanctions will be applicable to those who, either in writing or by word of mouth, with the same object in view, would incite the producers, the sellers or the holders of the said commodities to suspend the deliveries legally due from them or would in any other way cause them to commit such transgression. The same sanctions will also be applicable to those who, in consideration of prices higher than those legally fixed, would, with a view to profit, divert or attempt to divert from the collection or the distribution foodstuffs, commodities or products subject to rationing or to the quota system. In case of the offense being repeated, the offenders are liable to a term of imprisonment varying from one to ten years and to a fine amounting to from 200,000 to 10,000,000 francs.

GREECE.

The ordinance No. 46/57393 of May 10, 1947 (*E. K., No.* 96, *July* 12, 1947, *part II*, *p.* 513) forbids the sale in the open during the summer months (May to September inclusive) of canned foods. Their sale during these months may only take place in shops or in other premises protected by a roof.

The ordinance No. 56/85445 of June 30, 1947 (*E. K., No.* 116, *August* 23, 1947, *part II*, *p.* 636) forbids the sale in the open, during the summer months (May to September inclusive) of meat, fish and preserved foods. As an exception, the sale of these products is permitted within the enclosures of small popular markets, apart from their normal sale in closed premises.

NORWAY

The Ministry of Supplies and of Reconstruction, in an order issued on September 2, 1947 (*N. L., No.* 34, *September*, 10, 1947, *p.* 759) emanated certain important dispositions concerning the sale of horses, cattle, pigs, sheep and goats, as well as of the products derived from these animals.

Beginning from the date of publication of this order, the sale of these animals and of the products derived there-from is made subject to control, to be exercised in the legally established forms and in conformity with special regulations.

The producers are bound, upon the purchase of the animals, to give communication of such acquisition, within the term of seven days, to the Ministry of Supplies.

The General Direction of Supplies and of Rationing is authorized to formulate the conditions to be satisfied by any person seeking to acquire the right of selling the above mentioned animals. Any person wishing to buy stray animals will have to obtain the necessary authorization from the said General Direction. The same applies to the producers having livestock for sale, who are held, moreover, to give communication of it to the Commission of Supplies of the commune where they reside. The Commission has also to watch for the slaughterings to be confined strictly within the necessary limits and is authorized, in certain cases, to permit exceptions to the general rule. Finally the Commission decides which establishments in the commune are to be permitted to sell meat.

SWITZERLAND

In connection with international economic relations there are several recent measures which have to be mentioned : the order of the Federal Council concerning the service of remittances between Switzerland and Norway, dated October 6, 1947 (*R. L. F. No.*, 40, *October* 9, 1947, *p.* 1097), following upon the agreement concluded between these two countries on July 15, 1947 ; the trade agreement signed at Bern on October 15, 1947, between Switzerland and Italy, which became effective on November 1, 1947, (*R. L. F., No.* 43, *October* 30, 1947, *p.* 1136) the order of the Federal Council concerning the service of remittances between Switzerland and Italy dated October 31, 1947 (*R. L. F., No.* 44, November 6, 1947, p. 1159) ; the first supplementary arrangement in connection with the agreement of April 27, 1946, concerning the exchange of merchandise and the regulation of payments between Switzerland and Hungary, signed at Bern on October 25, 1947 (*R. L. F., No.* 44, *November* 6, 1947, *p.* 1175).

IV. - STATISTICS

SWEDEN

A Royal ordinance dated August 25, 1947, No. 666 (*S. F., No.* 666, *September* 19, 1947, *p.* 1767) prescribes, for specified regions, the carrying-out of a census of cultivated areas and entrusts a special Commission with the task of ensuring the presentation of the results within the term fixed, that is at the latest on October 18.

The circular order No. 667 of August 25, 1947 (*S. F., No.* 667, *September* 19, 1947, *p.* 1769) pre-

scribes the collection of statistical data with a view to a census of pigs. The order applies only to certain parts of the country. The data must be available at the latest on October 18, 1947, and it is the task of a specially appointed Commission to ensure its strict execution by all those concerned.

V. - FORESTRY

FINLAND

The decision of the Council of Ministers No. 477 of June 6, 1947 (*F. F., No.* 477-478, June 12, 1947, p. 745) contains provisions bearing upon forest products and based upon the law of May 6, 1941, concerning the control of the country's economic life during the period of crisis. The supply of the country with forest products had previously been regulated by the law of April 14, 1945, which was repealed on June 1, 1947, and has now been replaced by the provisions contained in the new regulations of June 6, 1947. These provisions establish the conditions to be stipulated in future contracts for the supply of forest products, the rules governing the requisition of such products by the public authorities, as well as the prices and the indemnities due in the case of such requisitions. Special provisions deal with the proceedure to be followed in appealing against the decisions of the technical commission responsible for the requisitions, with the fines etc.

NORWAY

A very strict system of control has now been introduced over the sale of carpenter's timber. The recent orders of the Ministry of Agriculture issued on August 8, 1947 (*N. L., No.* 31, *August*, 15, 1947, *p.* 686), based upon the law of May 14, 1947, concerning the measures for securing and regulating the supply of the country in articles of first necessity, refer in the first instance to all species of timber used in construction.

With a view to ensuring efficient control, there has been established a system of distribution of such timber among the different groups and associations for its sale. Such distribution, for the purpose of which the country is divided into six regions, will have to be put into effect by the several buying organizations in cooperation with the selling associations.

The purchase, or the acquisition by any other means, of carpenter's timber without special authorization is prohibited.

The members of a timber selling association are permitted to stipulate contracts with forest owners not belonging to an association. These latter, on the other hand, may also enter into contracts with associations or with buyers disposing of an authorized purchasing quota in the selling region concerned.

In any case, forest owners are authorized freely to sell standing timber to buyers disposing of a purchasing quota in the region, provided that the buyer does not engage in any such operation, without special authorization from the Minister of Agriculture, more than 50 per cent. of his purchasing quota.

Any sale of standing timber is subject to control over the measurements by the competent authority, as well as to the payment of a duty of 3 per cent. of the purchase price.

The order of August 8, 1947, permits forest owners freely to dispose of the forest products obtained by them from their own forests, provided they furnish the local selling association exact information concerning the products sold and their destination.

A Royal resolution dated August 15, 1947 (*N. L. No.* 32, *August* 25, 1947, *p.* 732) contains important provisions, based upon the law of June 30, 1947, concerning the regulation of prices, with a view to the constitution of an investment fund for the development of forestry.

The said fund is to be constituted by means of levying duties on the wood pulp factories for the making of paper, cardboard etc. This duty is fixed at 6 crowns per cubic metre of carpenter's timber or of any other forest product delivered to the factories during the period form September 1, 1947, to August 31, 1948. The same duty will have to be paid on all standing timber acquired by the factories. The same applies to the factories using their own forest products for the fabrication of wood pulp.

The resolution also contains the indication of the institutions or bodies to which the duty must be paid, the modes of effecting the payments, the discounts to be allowed on payments made in advance of the terms fixed, etc.

SWEDEN

The law No. 270 of June 20, 1947 (*S. F., No.* 270-271, *June* 28, 1947, *p.* 461) contains important provisions concerning the measurement of timber for construction. According to this enactment, when there are reasonable grounds for so doing, the measurement of felled timber should be made in conformity with the special rules established by Royal order or by the authorities responsible for forestry and, if need be, by an authorized technical expert.

Always with a view to render more effective the control over forestry, a special Commission is appointed whose task it is to carry out the operations of measuring timber, under the supervision of the forestry administration.

The decree No. 271, dated the same June 20 1947, contains executive provisions concerning the application of the above law.

VI. - RURAL WELFARE

(*a*) Agricultural cooperation.

FRANCE

The law No. 47-1632 of August 30, 1947 (*J. O., No.* 205, *August* 31, 1947, *p.* 8661) modifies the legal status of agricultural cooperation, as determined by the order No. 45-2325 of October 12, 1945. Agricultural cooperative societies are permitted to form unions for certain specified territorial regions. Such unions may comprise at the same time both first grade cooperative societies and second grade organizations of such societies. The number of first and second grade cooperative organizations within a union must not necessarily reach seven as a minimum.

The law No. 47-1632 of September 3,1947 (*J. O., No.* 208, *September* 4, 1947 *p.* 8767) modifies clause 55 of the same statute No. 45-2325 by extending ut to December 31, 1948, the term fixed for the presentation by agricultural cooperative societies and their unions of their demands for authorization, as well as for the revision, in conformity with the provisions of the order No. 45-2325 of October 12, 1945, of their present statutes.

The law No. 47-1775 of September 10, 1947 (*J. O., No.* 214, *September* 11, 1947, *p.* 9088) contains the Statute of the Cooperative Movement, which is to form, under the title « On Cooperative Organizations in general " Book I of the Legal Code of the Cooperative Movement, which is to be compiled through the codification of all the existing legislative provisions concerning cooperative organizations.

The essential objects of cooperative organizations are defined by the law in the following terms : (1) to reduce, for the benefit of their members, and by their joint efforts, the costs of production or, as the case may be, the selling prices of certain products and services, by assuming the functions of producers or intermediaries whose remuneration would otherwise cause the costs of production to be increased ;(2) to improve the commercial qualities of the products acquired or produced and sold to the consumers by their members.

The cooperative organizations may develop their activity in all the branches of human life. They are governed by the law of September 10, 1947, as well as by the special legislative provisions referring to their different categories.

ITALY

With a view to facilitating the participation of cooperative societies and of their federations in the allocation of public work contracts, the decree-law No. 1048 of July 25, 1947, (*G. U., No.* 235, October 13, 1947, *p.* 3750) raised to 20,000,000 lire for the primary cooperative societies and to 100,000,000 lire for their federations the highest limits of allocations of public and private works contracts which are fixed for these organizations.

(*b*) Agricultural labour.

ITALY

With a view to promoting the employment of the largest possible number of agricultural workers in the provinces and zones most affected by unemployment, the decree-law No. 929 of September 16, 1947 (*G. U., No.* 221, September 26, 1947, *p.* 2852) gives the Prefects the power, subject to approval by a special Commission dependent upon the Ministry of Labour and of Social Assistance, to constrain the operators of farms and the owners of forests to provide employment for agricultural workers in cultivation and in maintenance works in connection with farms, farm roads and plantations, as well as in stock farming.

SWITZERLAND

The federal order of June 20, 1947 (*R. L. F., No.* 40, *October* 9, 1947, *p.* 1058) contains provisions in respect of family allocations to agricultural workers and to peasants in the mountains. The allocations to agricultural labourers consist in household indemnities, in subsidies for the children and in supplementary grants for the dependents. The allocations to peasant in the mountains provide only for the children. In the families with farms having 1 to 6 units of cattle all the children under 15 years of age are taken into consideration for the purpose of family allocation ; on the farms having 6 to 9 units of cattle a single child does not entitle the family to an allocation, and on those with 9 to 12 units of cattle no allocation is granted to families with two children. The farmers with over 12 units of cattle are not entitled to any allocation.

In order to meet the expenditure involved in providing family allocations for agricultural labourers, all the agricultural employers are subject to the payment of a contribution of 1 per cent. on the total amount of wages paid by them to their employees. The Confederation and the cantons, on their part, will also contribute to such allocations, as well as to those to be granted to the peasants in the mountain areas.

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